

EIGHTH
ANNUAL REPORT
ON THE CONDITION
OF THE
COMBINED SANITARY DISTRICT
OF
WEST SUSSEX.

BY
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Horsham	28	East Preston	56	Littlehampton....	84
Petworth	37	Midhurst	67		

TABLE II.—Showing the Deaths and Death-rate in each District in each of the seven years, 1875—81, from Zymotic Disorders.

Steyning	13	Thakeham	46	Worthing	79
Horsham	28	East Preston	56	Littlehampton....	84
Petworth	37	Midhurst..	67		

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EIGHTH ANNUAL REPORT

ON THE

HEALTH OF THE COMBINED SANITARY DISTRICT OF
WEST SUSSEX.

RURAL SANITARY DISTRICT OF STEYNING.

POPULATION, 14,060 IN 1871 ; 16,173 IN 1881. AREA IN
ACRES, 45,678. NO. OF HOUSES (1871) 2659.

During the year 1881 the births of 544 children, and the deaths of 197 persons were registered ; of the births 262 were male and 282 were female ; of the deaths 110 were male and 87 were female.

There were only 185 deaths registered in the rural sanitary district. The remaining 12 deaths occurred in the Shoreham Workhouse, and these deaths have been distributed among the several parishes whence each inmate came, viz :—Portslade 1, Southwick 3, Sompting 2, Steyning 2, Lancing 1, Upper Beeding 1, Poynings 1, and Edburton 1, in all 12.

In each parish the deaths were as follows :—Preston 1, Patcham 14, West Blatchington 1, Hangleton 1, Portslade 41, Aldrington 4, Southwick 30, Kingston 2, Lancing 10, Old Shoreham 2, Sompting 8, Coombes 0, Buttolphs 0, Bramber 0, Steyning 29, Upper Beeding 12, Edburton 3, Poynings 7, Woodmancote 3, Henfield 22, Ashurst 2, Shermanbury 5.

POPULATION.—The recent census returns show that there has been a considerable increase in the population during the past decade. Shoreham sub-district lies to the south of the Downs, and the inhabitants dwell chiefly on a level strip of ground extending from Hove on the east to Worthing on the west. Along this strip the South Coast Railway runs, and since railway communication is easy, many of the villages along its course are rapidly increasing in size and importance. Steyning sub-district lies chiefly to the north of the Downs and the villages here show but little change.

				1861.		1871.		1881.
Shoreham Sub-District	5434	...	8090	...	10068
Steyning	„	5684	...	5970	...	6105

Total	11,118	...	14,060	...	16,173
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For the purpose of the following statistical tables the chief parishes in each sub-district have been separated from the smaller places, in order that the condition of the former might the more readily be contrasted year by year. In this way the facts concerning the parishes of Portslade and Southwick in the one sub-district, and the parishes of Steyning and Henfield in the other sub-district are given in fuller detail. The population of these different areas is here given :—

					1861.		1871.		1881.
{	Portslade Parish	...	...	...	1103	...	2344	...	3717
{	Southwick „	...	...	...	1358	...	2339	...	2501
{	Rest of Shoreham Sub-District	...	...	...	2973	...	3407	...	3850
{	Steyning Parish	...	...	...	1620	...	1665	...	1672
{	Henfield „	...	...	...	1662	...	1856	...	1893
{	Rest of Steyning Sub-District	2402	...	2449	...	2540

Whole District	11,118	...	14,060	...	16,173
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The births and deaths in the whole of the district during the past seven years have been as follows :—

Years.		Births.		Birth-rate.		Deaths.		Death-rate.
1875	...	438	...	29·4	...	243	...	16·3
1876	...	465	...	30·8	...	242	...	16·0
1877	...	482	...	31·4	...	244	...	15·9
1878	...	513	...	33·0	...	243	...	15·6
1879	...	499	...	31·6	...	196	...	12·4
1880	...	546	...	34·1	...	243	...	15·2
1881	...	544	...	33·5	...	197	...	12·1

Mean	...	498·1	...	32·0	...	229·7	...	14·8
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The following table shows the birth-rate in the more important parishes and in the rest of the district :—

										Mean of 5 years.
				1877.	1878.	1879.	1880.	1881.		
Portslade Parish	...	...	...	32·9	37·8	33·8	39·8	48·8		38·6
Southwick „	...	...	...	31·6	37·1	31·2	37·0	34·7		34·3
Rest of Shoreham Sub-District				27·5	29·3	25·0	26·5	27·7		27·2
Steyning Parish	...	...	...	35·3	25·7	36·5	38·3	27·5		32·6
Henfield „	...	...	...	30·8	28·7	31·8	27·0	25·3		28·7
Rest of Steyning Sub-District				33·1	36·2	35·7	37·2	28·7		34·2
Total	...	...	...	31·4	33·0	31·6	34·1	33·5		32·7

In each quarter the births and deaths were as follows :—

				Births.				Deaths.			
				M.	F.	Total.		M.	F.	Total.	
1st Quarter	...			51	56	107		25	25	50	
2nd „	...			76	78	154		27	14	41	
3rd „	...			69	77	146		30	27	57	
4th „	...			66	71	137		28	21	49	
Total				262	282	544		110	87	197	

				Births.				Deaths.			
				1879.	1880.	1881.	Total.	1879.	1880.	1881.	Total.
1st Quarter...	154	144	107	405	69	75	50	194			
2nd „ ...	104	122	154	380	49	66	41	156			
3rd „ ...	116	156	146	418	44	67	57	168			
4th „ ...	125	124	137	386	34	35	49	118			
Total				499	546	544	1589	196	243	197	636

The deaths at different groups of ages in each quarter are here shown :—

		Under one year.	1—5.	5—15.	15—25.	25—60.	60 and Upwds.	Total.
1st Quarter	...	10	4	1	2	10	23	50
2nd „	...	9	4	1	1	11	15	41
3rd „	...	20	5	—	4	9	19	57
4th „	...	9	1	1	3	14	21	49
Total		48	14	3	10	44	78	197

The *infant mortality* is here given as measured by the number of deaths under one year to the total number of births in the year :—

				No. of Births.	No. of Dths. under 1 year.	Ratio to 1000 of Births.
Portslade Parish	...	...	..	183	17	92
Southwick „	...	...	...	87	12	138
Rest of Shoreham Sub-District				107	11	102
Steyning Parish	...	...	...	46	5	108
Henfield „	...	...	...	48	—	—
Rest of Steyning Sub-District				73	3	41
Whole of District				544	48	88

Throughout England and Wales there were during the year 130 deaths of infants under one year of age, to every 1000 children born, against 158, 146, 136, 152, 135, and 153 in the six preceding years.

The infant mortality varies much in different parts of this district. The following table shows the variations in the

different localities during the past six years, and it also shows a gradual improvement in the death-rate at this period of life.

Ratio of Infant Mortality in									Mean of the six years
		1876.	1877.	1878.	1879.	1880.	1881.	1876-81.	
Portslade Parish	... ..	155	134	168	94	111	92	125	
Southwick	„	175	194	153	65	108	138	139	
Rest of Shoreham Sub-Dist.		99	99	146	95	89	102	105	
Steyning Parish	... ..	44	85	69	98	125	108	88	
Henfield	„	87	51	37	50	157	—	63	
Rest of Steyning Sub-Dist.		89	72	43	78	106	41	71	
		—	—	—	—	—	—	—	
Total	... ..	116	109	117	82	111	88	104	

The 48 infantile deaths in 1881 included 4 from diarrhœa, 1 from erysipelas, 11 from convulsions, 7 from bronchitis, 1 from pneumonia, 1 from enteritis, 11 from debility or atrophy, 1 from teething, 1 from a blow on the head, while 10 were born prematurely.

The deaths from *zymotic*, or catching disorders, were 17 in number; in the six previous years there were respectively 27, 39, 15, 35, 12 and 46 deaths from this group of disorders. The 17 deaths included 1 from small-pox, 2 from diphtheria, 4 from enteric fever, 7 from diarrhœa, 2 from erysipelas and 1 from pyæmia.

The rate of mortality from these diseases was 1·0 per 1000 persons living, against a rate of 1·8, 2·5, 0·9, 2·2, 0·7 and 2·8 in the six preceding years.

Throughout England and Wales the annual death-rate from the seven principal *zymotic* diseases alone was 2·24 per 1000, against 2·44 and 3·30 in the two preceding years.

Table II. shows the deaths and death-rate in each of the past seven years from this class of disorders, while Table III. shows the prevalence of these diseases in each parish during the same period.

Small-pox appeared in this district on several occasions; it was at the time very prevalent in the neighbouring town of Hove.

Case 1.—A. P., living at Portslade. He had a wife but no children. Mrs P.'s mother died of small-pox at Hove on Sept. 16th, and was nursed by Mrs P., who herself had a mild attack of small-pox at Hove on Sept. 23rd, and recovered. She had been vaccinated successfully when a baby, and again recently. Mr P. was vaccinated successfully when a baby, but not recently; he had a mild attack in the first week of October and made a good recovery.

The clothes were burnt and the house was disinfected on Oct. 29th, and there was no further spread of the disorder.

Case 2.—In a house in North Street, Portslade, containing six rooms, there lived two families. S.A. with his wife and four children, and C.J. with his wife and four children, in all, four adults and eight children. All of these persons had been successfully vaccinated in infancy, except S.A., who had small-pox when he was eleven years old.

Mrs J. was taken ill with small-pox on October 28th; she had a well-marked attack and made a good recovery.

Attempts were made in the early stage of the disease to remove some of the inmates from this crowded dwelling, but no one could be found to take any of the healthy ones in. The whole of the inmates were then kept indoors and the Board of Guardians supplied them with all necessary food as long as the illness lasted. Re-vaccination was performed on all, except on S.A., who had had small-pox, and upon a baby who was successfully vaccinated a year ago.

The effect of re-vaccination in each family is here shown :—

Walter A., 16 years, re-vaccinated, Nov. 4th, in 4 places, no result.

Alfred A., 14 years, re-vaccinated, Nov. 4th, 2 rose.

Eliza A., 8 years, re-vaccinated, Nov. 3rd, 3 rose, 4 old marks.

William A., 6 years, re-vaccinated, Nov. 3rd, 2 rose, 4 old marks.

Mrs. A., middle-aged, re-vaccinated, Nov. 3rd, 1 rose, 3 old marks.

C.J., middle-aged, re-vaccinated, Nov. 3rd, 4 rose, 3 old marks.

C.J., 8 years, re-vaccinated, Nov. 3rd, 4 rose, 4 old marks.

E.J., 6 years, re-vaccination, Nov. 3rd, 4 rose, 4 old marks.

W.J., 4 years, re-vaccinated, Nov. 3rd, 4 rose, 4 old marks.

Now these children had all been vaccinated a very few years ago, and it might not have been thought necessary that they should be re-vaccinated; the result showed that probably none of them were protected against an attack of small-pox.

C. J., 8 years, had a slight modified attack of small-pox, on Nov. 13th, and soon recovered. There was no other case in the house or neighbourhood. The clothes were burnt and the house was disinfected on Dec. 3rd.

Case 3.—E.B., aged 22 years, was attacked with small-pox at Southwick, on Nov. 11th; he was vaccinated when a baby, and he had an old mark on the left arm. He lodged in a clean and comfortable house, occupied by a man and his wife; these people had been successfully vaccinated in infancy, and they were again vaccinated on Nov. 17th, with success.

E. B. had a moderately severe attack, and made a good recovery; his clothes were burnt and the house was disinfected on Dec. 3rd.

Case 4.—C. H., 20 years, lodged at a small cottage at West Blatchington, a little village on the Downs, about two miles from Hove. In this cottage there lived a labouring man with his wife and six children; all the inmates had been vaccinated successfully in infancy. C. H., was a labouring man, and used to go into Hove once or twice a week. He was taken ill on

Nov. 16th, and was seen by a medical man on Nov. 19th. He died of malignant small-pox on Nov. 22d. The ordinary rash of small-pox did not appear, but his skin was covered with a purple eruption and he bled from various mucous membranes. He occupied a small bedroom in the cottage, while the other inmates slept in two other bedrooms. When the nature of the disease was manifest, three of the children slept in a stable for a night or two. All of the inmates were at once re-vaccinated and also some other persons who lived in a few cottages near. As soon as the patient died, the body was removed in a coffin to an out-house; the whole of the contents of the room were at once burnt and the cottage was well fumigated with sulphurous acid. This fumigation was repeated the next day and then the place was well limewashed. By the kindness of Mr Hodson, under whom this family lived, they lodged in an outbuilding for three or four nights until disinfection had been carried out. There was no further spread of the disease.

Case 5.—H. P., 18 years, lived at Portslade with his parents and four younger children.

He was taken ill on Nov. 24th and recovered after a mild attack. The family lived in a new house with three bedrooms; they had all been vaccinated in infancy, and with the exception of the baby they were again vaccinated now. No other case occurred in this house or neighbourhood. The clothes and bedding were burnt and the place was disinfected on Dec. 12th.

In these five houses there were five primary cases, and in each instance the disease was probably caught by the infected person from Hove. In two cases the individuals had only come to live at Portslade a few days before the illness began. In one instance (Case 3) a child caught the disease from its mother and it had a very mild attack. In no case did the disease spread beyond the house where it first appeared. In the five houses there dwelt fifteen adults and nineteen children, in all, thirty-four persons more or less exposed to the infection. Of these, five adults and one child were attacked; five recovered and one adult died. All who had the disease were vaccinated successfully in infancy; of those who did not have the disease, two had had small-pox years ago and the rest had been successfully vaccinated in infancy.

Enteric Fever.—An outbreak of enteric or typhoid fever appeared at Castletown in the early part of the year. Castletown is in the parish of Upper Beeding, and it is situated on the chalk close to where the upper greensand crops out. By the side of the main road there are fourteen houses built close together.

The first case of fever occurred in No. 3. There lived here J. B. with his wife and an adult daughter. This daughter was

taken ill on Dec. 2nd, 1880, and made a good recovery. The following table gives a brief abstract of the numbers attacked:—

NAME.	SEX	AGE	DATE OF ATTACK.	RESULT	REMARKS.
Ellen B.....	F.	22	Dec. 2, 1880...	Recovery	Parents escaped.
George D... ..	M.	11	Dec. 20, 1880	Recovery	The parents and baby escaped.
Henry D	M.	5	Jan. 24, 1881	"	
Mary Ann D ...	F.	6	"	"	
Clara D.....	F.	3	"	"	
John D.....	M.	2	"	"	
Frances D	F.	10	Feb. 24, 1881	"	The parents and two older child- ren escaped. The elder ones went to work and took tea with them. The younger ones often drank cold water.
Robert T	M.	6	Dec. 26, 1880	Recovery	
Grace T	F.	3	Early in Jan.	"	
Elizabeth T.....	F.	8	Middle of Jan.	"	
Frederick T.....	M.	10	End of Feb.	"	
Mary Jane T ...	F.	17	March 1	"	The father es- caped; and the mother was poorly for a fort- night; all the children were attacked.
Emma M	F.	17	Jan. 8, 1881	Recovery	
William M	M.	10	Jan. 13, 1881	"	
Harry M	M.	4	"	"	
James T	M.	16	Jan. 10, 1881	Recovery	The father and two eldest sons who went to work were not attacked; a daughter, six years, escaped. The mother was poorly for a few days.
John T	M.	8	" 12 "	"	
Albert T	M.	4	" 12 "	"	
Sarah T	F.	14	" 19 "	"	
George K.....	M.	8	Early in Jan.	Recovery	The father and two young chil- dren escaped. Mrs K. died on March 18th.
Mrs. K	F.	31	Middle of Feb	Death	
Ellen K	F.	6	March 1	Recovery	
Ann K	F.	4	"	"	
William W—r...	M.	4	Feb. 14	Recovery	The mother (a widow) escaped.
Ada	F.	11	Feb. 17	"	
Amelia W—n ...	F.	5	Feb. 13	Recovery	The father and two infants es- caped. Mrs W. died on March 10th.
Mrs W—n	F.	31	Feb. 14	Death	
John W—n	M.	9	"	Recovery	
Henry W—s ...	M.	60	Feb. 6	Recovery	The wife and an adult daughter escaped.

The fever appeared in nine of the fourteen houses ; one family left at the time, one house was empty, and in three houses the fever did not break out.

In the nine *infected* houses there were nineteen adults and thirty-five children ; of the nineteen adults, four had the fever ; of the thirty-five children, twenty-five were attacked. There were in all twenty-nine cases of fever, besides one or two cases in which the individuals were poorly for a few days with no definite symptoms.

In the three *non-infected* houses, there were six adults and four children :—

1. W. W. and wife, aged, seldom drank cold water.
2. R. B. and wife, middle aged, seldom drank cold water.
3. H. L., wife, and four young children.

Mrs L. had enteric fever at Steyning, in 1879, and some of the children were poorly also at that time. It is possible that a previous attack may have given some protection.

Three persons failed towards the end of December, nearly three weeks after the first case was attacked, then every week a few more failed until by the end of January, 1881, there were thirteen more fresh cases, making in all seventeen cases by January 31. On this day the well was closed and good water was obtained from a neighbour's cottage where the water was very free from ammonia and the amount of chlorine was low, being only equal to 2·2 grains per gallon. The water in the well at the infected houses contained a large quantity of free and albumenoid ammonia, and the amount of chlorine was equal to 6·5 grains of chlorine per gallon. The carbolic acid test, as above mentioned, showed that there was some leakage into the well. The milk supply was inquired into but there was nothing in common which could have affected all these people except the water used for drinking purposes. The outbreak did not, however, cease directly the well was closed. Early in February fever appeared in three more of the houses, but these persons had doubtless become infected before the closure of the well. At this time two women were attacked and died. One woman had been confined about a fortnight before her death, and the other woman had miscarried a few weeks previously. Probably the peculiar nature of the puerperal condition had some influence on the fatality. After the middle of February only two fresh cases appeared and these were in a house where there had been two other cases, one of which had proved fatal.

The epidemic then ceased and there were no other persons attacked in the neighbourhood.

The fourteen cottages were all supplied from one well which was sunk in to the chalk ; the well was covered over and the water was obtained by means of a pump. In each cottage

the pipe from the sink in the scullery ended in the open air over a trap placed outside the house. To each cottage a closet was provided with a hopper pan and syphon trap and each closet was flushed with water. Each closet was built outside the house, so that within the dwellings there was no drain whatever. The closets drained into two large cesspits situated in the garden at the back of the houses. The owner of this property had taken some pains with the sanitary condition of the houses and he had ventilated the house drains by means of shafts carried up above the heavens of the cottages.

The cesspits were not sunk as deep as the well; they were carried down to a marly layer in the chalk through which water will not readily penetrate.

The well was sunk through this layer until it reached the water-bearing stratum. The underground water here flows from N. W. to S. E. and the relative position of the cesspits and well was such that any leakage from the former into the water-bearing stratum would cause pollution of the well. That the water in the well had become polluted was shown by the fact that when carbolic acid, diluted with water, was poured down the closets, the water in the well became in a very short time strongly impregnated with carbolic acid.

A new well was sunk in a situation where pollution could not occur and this water is of good quality; it is very free from ammonia and it only contains 2·2 grains of chlorine per gallon.

The precautions adopted were the immediate closing of the well, the frequent flushing of the closets with carbolic acid, the destruction of foul clothing, and the provision of good wholesome water.

But granting that the water was the main cause of the infection, it is worthy of note that all the cases did not break out at the same time, nor does it seem clear that the impure water caused the first case.

There was a distinct interval between the first case of E.B. and the subsequent ones; assuming that she caught enteric fever in some way or other, then it is quite clear that her excreta, passing down the drains, would infect the water in the well, and so cause the spread of the disease. It is possible that the water may not have been at all times equally infective. The water was derived, not from a soakage from the surrounding soil, but from a water-bearing stratum where the flow is constant in a south-easterly direction. This explains why the water showed no naked-eye appearances of being polluted, and why the amount of impurity was not so great as might have been expected from a leaky drain or cesspit being so near. From this cause, too, the infectiveness of the water would vary from time to time.

The first three weeks of January were very cold and dry. At such a time there would not be very much cold water drunk, and it was a common habit of the parents to give the children tea, or water which had been previously boiled.

This epidemic may be contrasted with the one mentioned in Report VII., where a well became polluted at Worthing in a similar way, though in that case the milk supply was the means by which the infected water was carried from house to house.

There are very few houses in the neighbourhood of Castle-town, nor was there any means by which the disease could have spread from any nuisances around. The cottages were free from any entrance of sewer gas; there were no drains within or beneath the dwellings, and the house drains were not only ventilated but there was no direct communication between the house and the drains. Milk is seldom bought by the poor and therefore it is rarely used except in cases of illness; it was not the cause of the out-break here, as most of them had no milk to drink before the commencement of the illness. The one cause common to all seems to have been the polluted water, and the variations in the dates of attack and the exemption of some persons from the disease altogether may, I think, be explained in the manner above described.

There yet remains the question,—How did the first case arise? To this it is difficult to give a satisfactory answer. The patient E.B., who was taken ill on December 2nd, 1880, had not been from home, nor had there been any one staying in the house who had been ill. She lived with her parents in a clean and neat cottage. The only cause seems to have been that about the end of the previous October and six weeks before her illness began, the top of one of the cesspits fell in, and she may have been exposed to noxious emanations. If this be the case, it would seem as if enteric fever might at times arise *de novo* and afterwards it may become epidemic by various means of conveyance. In the autumn of 1880 there was much enteric fever along the South Coast and many towns suffered severely from this cause.

There were seven deaths returned as “not certified” out of a total of 197; male, 4 months, convulsions; male, 65 years, heart disease; male, 11 months, diarrhœa; male, 5 days, convulsions; male, 73 years, heart disease; female, 55 years, heart disease; male, 5 months, teething. All these deaths were registered in the Shoreham sub-district; in the Steyning sub-district there were no uncertified deaths.

In nine cases inquests were held. Female, 4 years, lung disease; male, 63 years, syncope; female, 4 months, injury to head by a blow with a stool; male, 24 years, drowned; male, 26 years, killed by lightning; female, 56 years, heart disease;

female, 65 years. apoplexy ; male, 23 years, apoplexy ; male, 60 years, suicide by drowning.

There were no deaths of any children born out of wedlock in the Steyning sub-district ; in the Shoreham sub-district the returns do not give any information on this point.

A few cases of over-crowding have been dealt with during the year, and the nuisance has been abated.

No cases occurred in which it was necessary to condemn meat or any other article of food,

The bakehouses have been inspected at intervals and they have been kept in a cleanly state.

Most of the slaughter-houses are well kept ; in two cases notices had to be served, and the nuisance was at once abated in each case.

There is no common lodging house in the district.

No proceedings were taken before the magistrates during the year.

BYE-LAWS.—There seems to be a gradual improvement in the construction of dwellings since the By-laws came in force, and more especially so towards the end of the year, when they were more strictly enforced. Several houses have been recently built at Portslade and Aldrington in which the drainage is very defective. These mistakes are being slowly altered, but it is most important that the Sanitary Authority should pass no plans unless the By-laws are strictly complied with. The commonest defects are those which have been so often mentioned in previous reports, especially in Report VI., pp. 80, 81, and in Report VII., pp. 43-45.

The accompanying tables are of interest in so far as they show the sanitary state of the district.

Table I. shows the deaths at various groups of ages during the last seven years. When the ages of the population at the last Census are published, these figures can be used for showing the rate of mortality at each period of life.

Tables II. and III. show the mortality from zymotic diseases for each year and for each parish. Diarrhœa and whooping-cough head the list, as regards frequency, followed by scarlatina, diphtheria, enteric fever, measles and erysipelas, while the other disorders are of rare occurrence.

Table IV. gives the deaths and death-rate from all causes and from various causes during the past seven years. All the figures have been revised, and the estimates of population are carefully corrected. The general death-rate has gone down from 16·3 to 12·1 per 1000 of population, the mean for the whole seven years being 14·8 per 1000.

The *zymotic* death-rate was 326 in 1851-60 ; 342 in 1861-70, while in 1875-81 it was 175 per 100,000 persons living.

The *phthisis* death-rate was 197 in 1851-60 ; 201 in 1861-70, while in 1875-81 it was 164 per 100,000 persons living.

The *lung-disease* death-rate in 1851-60 was 189 ; 1861-70 it was 192 ; in 1875-81 it rose to 221 per 100,000 of population.

The death-rate from *heart-disease* during the last seven years has been on the average 108 per 100,000 persons living.

The figures in this table are given per 100,000, so as to avoid the use of decimals.

Table A shows that the amount of mortality from all causes was smaller than usual during the year.

Table B shows that there was not much illness among the poorer classes during the period. There were 398 new cases of sickness, as against 543 in the preceding year.

STEYNING RURAL SANITARY DISTRICT.

TABLE I.—Showing the Deaths at various groups of ages in the seven years 1875-81.

YEAR.	At all Ages.	Under 1 year.	1 and under 5.	5 and under 15.	15 and under 25.	25 and under 60.	60 and upwards.
1875	243	65	11	11	15	48	93
1876	242	54	40	9	12	60	67
1877	244	53	21	10	11	75	74
1878	243	60	35	8	11	49	80
1879	196	41	18	6	10	53	68
1880	243	61	28	15	13	47	79
1881	197	48	14	3	10	44	78
TOTAL	1608	382	167	62	82	376	539
Mean	229.7	54.6	23.8	8.8	11.7	53.7	77.0

TABLE II.—Showing the Deaths and Death-rate in each of the seven years 1875-81 from Zymotic Diseases.

YEAR,	Small-pox.	Measles.	Scarlatina.	Diphtheria.	Whooping Cough.	Cont. Fevers.			Diarrhoea and Dysentery.	Rheumatic Fever.	Erysipelas	Pyæmia.	Puerperal Fever.	TOTAL.	Rate per 1000 persons living.
						Typhus.	Enteric or Typhoid	Other or Doubtful.							
1875 ...	...	...	...	5	7	..	2	2	8	...	3	..	..	27	1.8
1876 ...	3	12	4	3	..	..	3	2	11	...	..	..	1	39	2.5
1877 ...	...	3	2	1	..	..	1	1	3	...	2	..	2	15	0.9
1878 ...	1	...	2	11	2	...	...	...	16	...	1	...	2	35	2.2
1879 ...	...	1	1	2	...	...	3	1	1	...	2	1	...	12	0.7
1880 ...	8	...	...	12	...	...	3	...	20	...	1	...	2	46	2.8
1881 1	...	...	2	...	...	...	4	...	7	...	2	1	...	17	1.0
Tl	1	12	16	16	36	2	16	6	66	—	11	2	7	191	1.7

STEYNING RURAL SANITARY DISTRICT.

TABLE III.—Showing the Total Deaths from Zymotic Diseases in each Parish in the 7 years 1875-81.

PARISH	Population census 1881	Small Pox	Measles	Scarlatina	Diphtheria	Whooping Cough	Cont. Fevers			Diarrhoea and Dysentery	Rheumatic Fever	Erysipelas	Pyæmia	Puerperal Fever	TOTAL
							Typhus	Enteric or Typhoid	Other or doubtful						
Preston	873	..	..	..	..	..	..	..	..	6	..	..	..	..	6
Patcham	59	1	..	..	..	..	..	..	..	..	..	1	..	..	2
West Blatchington	76	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Hangleton	3717	..	4	10	2	12	..	4	1	26	..	1	1	1	62
Portslade	144	..	1	..	..	..	..	..	..	3	..	2	..	..	4
Sldrington	2501	..	4	3	3	2	..	1	3	15	..	2	..	..	33
Southwick	262	..	..	..	1	..	..	1	..	1	..	2	..	..	5
Kingston	1341	..	..	..	1	6	..	1	..	3	..	1	..	..	12
Lancing	248	..	..	..	..	..	..	1	1	..	..	..	..	..	2
Old Shoreham	682	..	..	..	..	1	..	1	1	2	..	..	..	..	5
Sompting	71	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Coombes	94	..	..	..	..	1	..	..	..	..	..	..	..	..	1
Buttolphs	186	..	..	..	..	1	..	..	..	..	..	..	..	..	1
Bramber	1672	..	1	..	5	5	..	2	..	5	..	1	..	..	19
Steyning	611	..	..	..	3	1	..	2	..	2	..	..	..	..	8
Upper Beeding ..	341	..	1	..	1	1	..	..	..	..	..	1	1	1	5
Edburton	316	..	..	..	..	..	..	..	..	..	..	..	..	..	1
Poynings	347	..	..	1	..	..	..	..	..	..	..	..	..	..	2
Woodmancote	1893	..	..	2	..	3	1	3	..	2	..	2	..	2	15
Henfield	376	..	1	..	..	1	..	..	..	1	..	..	..	..	3
Ashurst	363	..	..	..	..	2	1	..	..	..	..	..	1	1	5
Shermanbury .....		..	..	..	..	..	..	..	..	..	..	..	..	..	..
Whole District	16173	1	12	16	16	36	2	16	6	66	..	11	2	7	191

Shoreham Sub-District.

Steyning Sub-District.

STEYNING RURAL SANITARY DISTRICT.

TABLE IV.—Showing the Deaths and Death-rate from all causes and from various causes in different localities in the seven years 1875-81.

LOCALITY.	Deaths during the 7 years 1875-81 from							Annual death-rate per 100,000 living from				
	Population in middle of period.	All Diseases	Zymotic Disease	Phtisis	Lung Disease	Heart Disease	All Diseases	Zymotic Disease	Phtisis	Lung Disease	Heart Disease	
Portslade Parish	3305	326	62	28	53	19	1409	268	121	229	82	
Southwick Parish	2448	269	33	25	40	18	1569	196	146	232	105	
Rest of Shoreham Sub-District	3715	336	37	40	39	24	1292	142	156	152	92	
Steyning Parish	1670	194	19	22	39	10	1659	162	188	333	85	
Henfield Parish	1882	227	15	27	31	26	1723	113	205	235	197	
Rest of Steyning Sub-District	2510	256	25	36	38	21	1457	142	205	216	115	
Whole District.....	15530	1608	191	178	240	118	1480	175	164	221	108	
In 1875	14880	243	27	23	53	24	1633	181	154	356	161	
In 1876	15090	242	39	24	38	19	1603	258	159	251	125	
In 1877	15310	244	15	37	25	16	1593	98	241	163	104	
In 1878	15530	243	35	30	38	12	1564	225	194	244	77	
In 1879	15760	196	12	29	30	17	1243	76	184	190	107	
In 1880	15990	243	46	21	37	14	1519	287	131	232	87	
In 1881	16225	197	17	14	19	16	1214	104	86	117	98	

(A) TABLE OF DEATHS during the year 1881, in the Rural Sanitary District of STEYNING, classified according to Diseases, Ages, and Localities, and showing also the Population of such Localities, and the Births therein during the year.

[illegible]

(B) TABLE OF NEW CASES OF SICKNESS coming to the knowledge of the Medical Officer of Health, during the year 1881 in the Rural Sanitary District of STEYNING, classified according to Localities and Diseases.

NAMES OF LOCALITIES.	NEW CASES OF SICKNESS IN PERSONS BELONGING TO THE DISTRICT, DISTINGUISHING THOSE IN CHILDREN UNDER FIVE YEARS OF AGE,																	Other Diseases, such as Chicken Pox or Pneumonia, which the Medical Officer of Health thinks well to record.
	11	Smallpox 12	Measles 13	Scarlatina 14	Diphtheria 15	Croup (not "spasmodic") 16	Whooping Cough 17	Cont. Fevers.			Diarrhoea and Dysentery 21	Cholera 22	Rheumatic Fever 23	Erysipelas 24	Pyæmia 25	Puerperal Fever 26	Ague 27	
								Typhus 18	Enteric or Typhoid 19	Other or Doubtful 20								
PORTSLADE PARISH.	Under 5 ...																	
	5 upwards	2		1										1				
SOUTHWICK PARISH.	Under 5 ...																	
	5 upwards			1					1	1								
REST OF SHOREHAM SUB-DISTRICT.	Under 5 ...						1											
	5 upwards												1					
STEYNING PARISH.	Under 5 ...																	
	5 upwards									1	3		1	1			2	
HENFIELD PARISH.	Under 5 ...																	
	5 upwards			1					2					1				
REST OF STEYNING SUB-DISTRICT.	Under 5 ...			1			1		2									
	5 upwards			2					6		3			2			1	
	Under 5 ...																	
	5 upwards																	
	Under 5 ...																	
	5 upwards																	
	Under 5 ...																	
	5 upwards																	
Totals	Under 5 ...			1			2		2									
	5 upwards	2		5					9	2	6			2	5		3	

Sources of information :—In Workhouse and Workhouse Infirmary, 61. Among Out-door Paupers, 337.

RURAL SANITARY DISTRICT OF HORSHAM.

POPULATION 14,131 in 1871; 15,487 in 1881. AREA IN
ACRES, 45,678. NO. OF HOUSES, (1871), 2781.

During the year 1881 the births of 503 children, and the deaths of 197 persons were registered; of the births 261 were male and 242 were female; of the deaths 112 were male and 85 were female.

There were 203 deaths registered as occurring in the Rural Sanitary District, but six of these deaths belonged to the Horsham Urban Sanitary District, although they died in the Union Workhouse which is situate in the rural portion of the Union. There were during the year nineteen deaths in the Workhouse; of these, six did not belong to this district and the remaining thirteen have been distributed among the various parishes whence each inmate came, viz., Horsham 4, Warnham 1, Nuthurst 2, Slinfold 3, Rudgwick 2, and Billingshurst 1, in all 13.

In each parish the deaths were as follows:—Horsham 41, Lower Beeding 12, Ifield 24, Crawley 4, Rusper 6, Warnham 13, West Grinstead 18, Shipley 16, Nuthurst 9, Slinfold 10, Itchingfield 4, Rudgwick 15, Billingshurst 25.

POPULATION.—With the aid of the recent census returns, all the estimates of the number of persons living in each of the past six years have been carefully revised and the tables which accompany this report embody the result of this revision.

The population has considerably increased in Horsham and Ifield, but in the other parishes there has been no marked change.

The increase in each sub-district is here shown:—

			1861.	1871.	1881.
South Sub-district	...	...	4175	3945	4083
North	„	...	5506	6367	7464
West	„	...	3695	3819	3940
Total			13,376	14,131	15,487

In estimating the rates for the past year, the population is taken from the number of persons estimated to be living in the district in the middle of the year. The census was taken in April, 1881, and therefore the estimated number is a trifle higher

than the census return, allowance being made for an increase in the three months.

Estimating then the population in the middle of the year at 15,510, the birth-rate was equal to 32·4 and the death-rate was equal to 12·7 per 1000 persons living.

This death-rate is nearly as low as in 1877, in which year the mortality was less than in any previous year.

Throughout England and Wales the birth-rate during the year was equal to 33·9 and the death-rate was equal to 18·9 per 1000; in small towns and country parishes the rate of mortality was 16·8 per 1000, while in the chief towns the rate was equal to 20·3 per 1000 persons living. The year 1881 was upon the whole a very healthy one, and the death-rate for the year is the lowest which has been recorded since Civil Registration was established in 1837.

The births and deaths in the whole of the district for the past six years have been as follows :—

Year	Births	Birth-rate	Deaths	Death-rate
1876	449	31·3	243	16·9
1877	455	31·5	182	12·6
1878	490	33·5	204	13·9
1879	499	33·8	241	16·3
1880	444	29·0	217	14·1
1881	503	32·4	197	12·7
Mean ...	473·3	32·3	214	14·5

In each quarter the births and deaths were as follows :—

		Births.			Deaths.		
		M.	F.	Total.	M.	F.	Total.
1st Quarter	..	77	58	135	25	21	46
2nd	„	66	52	118	36	23	59
3rd	„	68	68	136	31	26	57
4th	„	50	64	114	20	15	35
Total	...	261	242	503	112	85	197

The births and deaths in each quarter of the past 3 years are here contrasted :—

		Births.				Deaths.			
		1879.	1880.	1881.	Total.	1879.	1880.	1881.	Tl.
1st Quarter	..	118	112	135	365	72	57	46	175
2nd	„	123	104	118	345	68	53	59	180
3rd	„	127	124	136	387	55	59	57	171
4th	„	131	104	114	349	46	48	35	129
Total	...	499	444	503	1446	241	217	197	655

The deaths at various groups of ages in each quarter are here shown :—

		Under one year.	1—5.	5—15.	15—25.	25—60.	60 and Upwards.	Total.
1st Quarter	...	13	6	1	2	6	18	46
2nd	„	9	1	4	3	21	21	59
3rd	„	12	4	1	1	20	19	57
4th	„	6	3	2	3	8	13	35
Total.....		40	14	8	9	55	71	197

The following table shows the birth-rate in each sub-district for a term of years :—

	1876.	1877.	1878.	1879.	1880.	1881.	Mean of six years.
South Sub-dist.	30·8	31·2	33·1	34·5	30·7	34·7	32·4
North „	32·7	29·7	34·7	36·0	25·1	30·8	32·2
West „	29·6	34·6	32·0	29·3	34·3	32·9	32·1
Total	31·3	31·5	33·5	33·8	29·0	32·4	32·3

The *infant mortality* is here given as measured by the number of deaths under one year to the total number of births in the year :—

			Births.	Deaths under 1 year.	Ratio to 1000 births.
South Sub-district	...	...	142	13	91
North	„	...	231	15	65
West	„	...	130	12	92
Whole of District			503	40	79

Throughout England and Wales there were during the year 130 deaths of infants under one year of age to every 1000 children born, against a rate of 158, 146, 136, 152, 135 and 153 in the six preceding years; the proportion of infant mortality averaged 149 per 1000 during the ten years, 1871-80.

The following table shows the ratio of infant mortality in each sub-district during the past six years :—

	1876.	1877.	1878.	1879.	1880.	1881.	Mean of the six yrs. 1876-81.
South Sub-district	72	71	89	100	122	91	91
North „	100	82	73	78	102	65	82
West „	165	81	80	148	44	92	99
Whole District	109	79	79	100	90	79	89

The deaths from *zymotic* or catching disorders were 22 in number. There were 8 deaths from whooping cough, 5 from diarrhœa, 1 from scarlatina, 1 from fever, 2 from diphtheria, 2 from rheumatic fever, 1 from pyæmia and 2 from puerperal fever,

In the five preceding years there were respectively 27, 6, 14, 21 and 26 deaths from this group of disorders.

The rate of mortality from these diseases during the past year was 1·4 per 1000 persons living, against a rate of 1·8, 0·4, 0·9, 1·4 and 1·6 in the five previous years.

In the past six years there have been altogether 116 deaths in this class, or a mean annual rate of 1·3 per 1000.

Throughout England and Wales the death-rate from the seven principal zymotic diseases alone was equal to 2·24 per 1000, against 2·44 and 3·30 in the two preceding years.

In this district whooping cough and diarrhœa head the list as regards frequency; then follow in order, measles, diphtheria, scarlatina, enteric fever, peurperal fever, doubtful cases of fever, and rheumatic fever. Pyæmia and small pox only caused one death each in the six years. Tables II. and III. show the prevalence of these disorders in each year and in each parish.

Small Pox appeared once in the district during the year. A domestic servant, E. M. T., aged 22 years, came down to Southwater from London with a family on July 5th. She fell ill on July 8th and three days afterwards the rash of small pox appeared. She was at once removed to a cottage close by and isolation was well carried out. The room in which she had slept before removal, was fumigated, and the members of the family were re-vaccinated. E. M. T. had been successfully vaccinated in four places in infancy, but not since. She had a moderately severe attack but made a good recovery. She probably caught the disease on June 25th when travelling on the Metropolitan Railway on her way from South Kensington to Praed Street; on that day there was a man in the same compartment with his face muffled up and covered with an eruption which smelt badly. The girl knew of no other way in which she had been exposed to infection. This would give thirteen clear days between the time of exposure and the first onset of the illness.

In a previous case the period of incubation of this disorder was clearly fixed at thirteen and a half days. Report III. p 24.

The clothing and bedding used by E. M. T. were burnt on August 13th, and the cottage was well fumigated. There was no spread of the disease.

POLLUTION OF THE RIVER ARUN.—The following report was sent in to the Sanitary Authority on August 2nd, in consequence of the great pollution of the river caused by the Horsham sewage farm:—

On July 28th, 1881, I visited Broadbridge Mill to enquire into a nuisance arising from the impure state of the river Arun at that spot.

On following the course of the river from Horsham west-

wards it was found that at the bridge which crosses the Worthing road the stream was free from any sewage matter. A little lower down, an old drain entered the stream and some white fluid was flowing in from some mineral-water manufactory close to. There seemed to be some evidence that sewage still continued to flow down this drain as the water below this point was dark and offensive and there was a deposit of black mud on the banks.

This pollution was not noticed much further down, and it was quite lost at a distance of a quarter of a mile from the Worthing road. No further pollution was noticed until reaching the sewage farm, when it was found that a large quantity of foul sewage was flowing from the farm through the effluent pipe. No sewage at this time appeared to be entering the river from the surface of the farm, nor from any cracks or holes in the banks. Only a small portion of the surface of the farm was covered with sewage.

The river from the farm effluent westwards was very impure and much black deposit was noticed on the banks. At Floodgates the stream was diverted towards Broadbridge Mill and only a very little foul water trickles through the Floodgates into the river below. From Floodgates to Mr Stanford's Mill the stream is narrow and it was nearly stagnant at the time of my visit as the mill was not then working. The water in this stream was foul and dirty and it gave off an offensive sickly odour. The large pond at the mill, which is fed by this stream, was in a similar condition. There were no dead fish about, but some had been seen gasping at the surface. The water, although very impure and offensive, was not in such a foul condition as it was in the early part of September, 1880, but it may become as bad unless some measures are taken for preventing the pollution of the river. I have examined four samples of water :—

- 1.—Taken from the river at Denne Road Railway Bridge. This sample contained no evidence of sewage.
- 2.—Taken from the river about 150 yards below Worthing Road. This sample contained distinct evidence of sewage.
- 3.—Taken from the effluent at the sewage farm. This sample was dark in colour, foul and offensive, it was in fact recent sewage with some of the suspended matter removed.
- 4.—Taken from the stream at Mr Stanford's Mill. This sample was foul and offensive, and it was very similar in character to No. 3, but in a much diluted state.

There was nothing at all of an offensive nature flowing into the river from the tan-yard stream. There was hardly any water flowing into the river from the Warnham branch. The nuisance arose from the foul and impure state of the river Arun,

and this state was brought about by sewage entering the stream at the Horsham sewage farm, and to a much less extent by sewage entering the stream by the Worthing road drain.

This report was forwarded to the Horsham Local Board, but no effectual means for abating the nuisance had been devised by the end of the year. See also report VII., pp. 7-8.

IFIELD AND CRAWLEY DRAINAGE.—The difficulties attending the drainage of these two places have been mentioned in previous reports. Report VI. pp. 19—21.

In the year 1880, the parish of Crawley with a population of 451, was taken from East Grinstead Union and transferred to this Union. Henceforth the two parishes came under the same rural sanitary authority.

On May 11th, 1881, Mr Kelsey sent in his scheme and plans for draining the two parishes at an estimated cost of £2542, not including the purchase of the land and the necessary machinery for filtering the sewage. These plans were laid before the ratepayers and a public meeting was held on May 23rd. At this meeting the general character of the scheme was approved of, but it was proposed to extend it to Worth Lane so as to include the cottages there, and the monastery.

Mr Kelsey laid the amended scheme before the sanitary authority on June 8th, and the plans were approved of by the sanitary authority on July 20th. On that day it was resolved that the Local Government Board be requested to hold an inquiry to consider Mr Kelsey's plans, to consider the desirability of dissolving the present contributory district of Ifield, and of forming any new contributory district of Crawley and Ifield which may be proposed.

On August 31st it was resolved that the sanitary authority should apply to the Local Government Board for their sanction to borrow the sum of £3000 for the purpose of the drainage of Crawley and Ifield. An enquiry was held by Major Tulloch on October 4th, to consider the question of dissolving the special drainage district of Ifield and to sanction the borrowing of money for works of sewage and sewage disposal.

Mr Hurst, as Chairman of the Horsham Rural Sanitary Authority, explained the present position of affairs.

He pointed out that the district was vested in the two parishes of Crawley and Ifield, and in consequence of a difficulty which arose, the Local Government Board had included Crawley in the Horsham Union, taking it out of the East Grinstead, to which it belonged, in order that the whole question of sewage might be vested under one authority. Ifield contained 4,133 acres, with a rateable value of £10,365, while the whole parish of Crawley had an acreage of 1,725, with a rateable value of £1,663, the two parishes joining in the centre of the road where

they now were. It was desirable to state, with regard to Crawley, that there was an outlying portion of the parish entirely separated from it, and lying adjacent to Lower Beeding, and this had an area of 514 acres out of the 1725, and the outlying rateable value was £305. Some years ago a special drainage district was created, consisting of the rateable value in the parish of Ifield of £3800, with a very small area. The rateable value of Ifield had greatly increased under the new valuation, and the main increase had taken place in the urban district, which was nearly £1000 more under the recent assessment. He ventured to say that this special district was too small, and he hardly thought there could be any question about the propriety of dissolving that district, and including a larger one. The necessity of proceeding with these drainage works was due to the fact that the Rural Sanitary Authority of Horsham had had proceedings taken against it for creating a nuisance and polluting a stream in Worth-lane, and, on the case coming before the Horsham Magistrates, six months were allowed in order to remedy the evil, and already two of those months had elapsed. The question arose as to what course was to be taken. Some years ago a scheme was proposed which was similar to the present one. It proposed to take the drainage northwards, down the centre of the street, and then to take the sewage on to some land which lay upon the east of the road. Great difficulties presented themselves however, one of the chief of which was the land where it was proposed to take the sewage was so low that it was frequently flooded. There was no question however but that that was the direction in which the sewage must be taken, and the present scheme, which was a modification of the old one, took the sewage in a similar direction, but deposited it west instead of east, and proposed two different sites for the filtration beds. Some favoured one site, and some the other. The engineer favoured the site marked green on the plan, but he was inclined to favour the one marked yellow. The estimated cost of the land and the work was £3095, but in all probability that amount would be considerably increased, though he hoped not, and probably he would not be far out if they added another £500. The next question was the area to be rated for this purpose, and the feeling of the Sanitary Authority, so far as he, the Chairman of that body could ascertain, was, that if the district of Ifield could propose a really reasonable district, they would consider it with a view of meeting with the desire of the ratepayers, and, in the event of the Ifield people making no proposals, the Sanitary Authority would for the whole parishes. It was thought by some that the outlying portions ought not to be rated for this purpose, but the majority said there was no reason

why this should not be included, because the rates of the parish had been expended for the purpose of maintaining their roads. The question was, was there anything unfair in their contributing to the town portion of the parish. Agricultural land only paid one fourth for sewage works, while the town paid upon the whole. Taking a wide margin, and estimating the cost of these works at £4000, and that the payment of the same was spread over 31 years, he apprehended that the money could be easily borrowed at $4\frac{1}{2}$ per cent, and that $6\frac{1}{2}$ per cent would cover the whole sum to be borrowed. He calculated that a shilling in the £ in the town, and 3d on the land would produce £275, which was a little more than would be required to pay off the yearly instalments. He contended that to continue the Special District was out of the question, because the buildings in the district had already out-run that district.

On November 23rd, the sanitary authority were informed by the Local Government Board that an order would shortly be issued dissolving the Ifield special drainage district, and stating that with regard to the purchase of the land required by the Authority for the purpose of the disposal of the sewage of Crawley and Ifield if they could not acquire the land by agreement and desired to apply for a provisional order under sect. 176 of the Public Health Act, 1875, immediate notice must be given to be published in three consecutive weeks in the present month, in a paper circulating in the district. A notice to this effect was prepared and approved of by the sanitary authority. At the end of the year nothing further had been done with regard to any main system of drainage.

In the mean time the Rural Sanitary Authority of the East Grinstead Union, on August 6th, summoned the Horsham Rural Sanitary Authority before the Horsham Bench of Magistrates "for allowing a certain ditch lying between the district of the Rural Sanitary Authority of the East Grinstead Union and that of the Horsham Union at Worth Lane, in the parish of Ifield, to become so foul and offensive as to injuriously affect the district of the said Rural Sanitary Authority of the East Grinstead Union, and also to show cause why an order should not be made upon them for cleansing such ditch, and for otherwise executing such other permanent works as might appear necessary to get rid of the nuisance complained of."

After hearing evidence on the subject, the Bench decided that a nuisance existed, and they made an order that the ditch should be cleaned out and that such other works should be carried out as might be deemed necessary to abate the nuisance. The case would be adjourned for six months in order to give the defendants time to carry out the order made. If not proceeded with,

and if the order of the Court were disobeyed, the East Grinstead authority could take further proceedings. The costs, as sent in, amounted to £20 18s 6d, but these were taxed down to £6 4s 4d and had to be paid by the defendants.

STAR ROW.—This hamlet, in the parish of Horsham, was formed into a special drainage district in the year 1874. Report VI. pp. 21—22. At that time it was partially drained, but since then several houses have been built outside the drainage area. On March 16th, 1881, the sanitary authority wrote to the Local Government Board requesting that the special drainage district should be dissolved. An enquiry for this purpose was appointed to be held by Major Tulloch on April 7th, but it was adjourned for a month in consequence of opposition from ratepayers residing in the district. After a further adjournment the inquiry was held on May 13th, and after evidence had been heard, the Inspector thought it desirable to dissolve the district. On July 6th the Local Government Board sent a copy of the order dissolving the district to the Horsham Sanitary Authority.

There were three deaths returned as “not certified” in the South sub-district out of a total of 57 deaths: male, 5 minutes, premature birth; male, 9 weeks, convulsions; female, 1 day, premature birth.

There was one death returned as “not certified” in the North sub-district out of a total of 86 deaths: male, 9 months, mesenteric disease.

There were three deaths returned as “not certified” in the West sub-district out of a total of 54 deaths: male, 1 month, debility from birth; male, 76 years, heart disease; female, 68, years, heart disease.

Inquests were held in nine cases; male, 1 month, accidentally suffocated; female, 48 years, natural causes; male, 59 years, found drowned; male, 16 years, murdered, male, 40 years, accidental fall from horse; female 56 years, accidentally killed by a train; male, 46 years, suicide by hanging; male, 7 years, manslaughter; male, 44 years, natural causes.

In the South sub-district out of 142 births two children born out of wedlock died during the year: male, 5 minutes, premature birth, not certified; male, 9 years, peritonitis, certified.

In the North sub-district out of 231 births one infant born out of wedlock died during the year; male, 1 month, accidentally suffocated—inquest held.

In the West sub-district out of 130 births, no child born out of wedlock died during the year.

There have been no cases during the year in which it was found necessary to condemn meat or any other article of food which had been exposed for sale. The slaughter-houses and

bakehouses have been inspected at intervals, and they have been kept in a cleanly state.

There is at the present time no common lodging house in the district.

An owner of property at Ifield erected a lodge and permitted it to be occupied without having obtained from the sanitary authority a certificate that there was provided, within a reasonable distance of the house, an available supply of wholesome water, sufficient for the consumption and use for domestic purposes of the inmates of the house.

For this neglect he was summoned before the Horsham Bench of Magistrates on January 8th, and he was fined five shillings and costs.

The returns of cases of sickness among paupers show that there were 556 new cases during the year, against 1000, 937, 644, 783, 675 and 634 in the six preceding years.

RAINFALL.—The amount of rainfall during the year was taken daily by T. W. Cowan, Esq., of Compton's Lea, who has kindly allowed me to use his tables.

Month.	Total depth in inches.		No. of rainy days.		Rainfall in 1880.	
January	...	·87	...	8	...	·70
February	...	3·22	...	12	...	3·33
March	...	2·52	...	12	...	·66
April	...	·43	...	9	...	2·29
May	...	1·02	...	10	...	·07
June	...	1·98	...	11	...	2·98
July	...	·73	...	10	...	3·64
August	...	5·60	...	20	...	1·76
September	...	2·98	...	18	...	4·69
October	...	2·60	...	18	...	7·01
November	...	4·00	...	17	...	3·66
December	...	3·58	...	18	...	3·31
Total.....	29·53		163			34 10

The rain guage is placed 4ft. above the ground and 253ft. above the sea level; diameter of funnel, five inches.

Table I. shows the deaths at various groups of ages during the past six years.

Tables II. and III. gives particulars of the incidence of various zymotic diseases in each of the past six years, and in each parish in the district.

In Table III. the parish of Horsham appears in two places; this is in accordance with the arrangement of the sub-districts adopted by the Registrar General. Southwater and Tower Hill

are the chief hamlets in the south part of Horsham, while Star Row is the chief hamlet in the north part of Horsham.

Table IV. gives the deaths and death-rate from all causes and from various causes in each sub-district in the past six years.

The *general* death-rate was 17·6 per 1000 in 1851-60 ; it was 17·6 in 1861-70, while it has been as low as 14·5 in 1876-81.

The *zymotic* death-rate was 388 per 100,000 in 1851-60 ; it was 300 in 1861-70, and it was reduced to 130 in 1876-81.

The *phthisis* death-rate was 261 per 100,000 in 1851-60 ; it was 212 in 1861-70, and it was 160 in 1876-81.

The *lung-disease* death-rate was 246 per 100,000 in 1851-60 ; it was 326 in 1861-70, and it was 261 in 1876-81.

HORSHAM RURAL SANITARY DISTRICT.

TABLE I.—Showing the Deaths at various groups of ages in the six years 1876-81.

YEAR.	At all Ages.	Under 1 year.	1 and under 5.	5 and under 15.	15 and under 25.	25 and under 60.	60 and upwards.
1876	243	49	20	12	13	56	93
1877	182	36	9	8	12	39	78
1878	204	39	17	9	6	56	77
1879	241	50	22	12	21	47	89
1880	217	40	25	17	12	40	83
1881	197	40	14	8	9	55	71
TOTAL	1284	254	107	66	73	293	491
Mean ...	214	42·3	17·8	11·0	12·1	48·8	81·8

TABLE II.—Showing the Deaths and Death-rate in each of the six years 1876-81 from Zymotic Diseases.

YEAR,	Small-pox.	Measles.	Scarlatina.	Diphtheria.	Whooping Cough.	Cont. Fevers.			Diarrhoea and Dysentery.	Rheumatic Fever.	Erysipelas	Pyæmia.	Puerperal Fever.	TOTAL.	Rate per 1000 persons living.
						Typhus.	Enteric or Typhoid	Other or Doubtful.							
1876	1	6	4	...	9	...	3	1	3	...	...	...	...	27	1·8
1877	...	2	...	...	...	...	3	...	1	...	...	...	...	6	0·4
1878	...	2	1	1	2	...	1	...	5	1	...	...	1	14	0·9
1879	...	3	1	3	8	...	1	1	3	...	...	...	1	21	1·4
1880	...	4	3	5	4	...	1	1	7	...	...	...	1	26	1·6
1881	...	...	1	2	8	...	...	1	5	2	...	1	2	22	1·4
Tl	1	17	10	11	31	...	9	4	24	3	—	1	5	116	1·3

HORSHAM RURAL SANITARY DISTRICT.

TABLE III.—Showing the Total Deaths from Zymotic Diseases in each Parish in the 6 years 1876 81.

PARISH	Population census 1881	Small Pox	Measles	Scarlatina	Diphtheria	Whooping Cough	Cont. Fevers			Diarrhoea and Dysentery	Rheumatic Fever	Erysipelas	Pyæmia	Puerperal Fever	TOTAL
South Sub-dist.															
Horsham (part of)	682	1	1	2	4	2	..	..	..	..	..	..	..	1	9
West Grinstead ...	1476	..	1	2	1	3	..	3	..	3	..	..	..	1	14
Shipley	1114	..	1	..	3	1	..	..	..	..	..	..	..	..	7
Nuthurst	811	..	3	..	..	2	..	1	..	1	..	..	..	1	7
North Sub-dist.															
Horsham (part of)	2066	..	2	1	2	1	..	1	..	4	..	..	..	1	14
Lower Beeding ...	1310	..	..	..	..	6	..	..	..	4	..	..	..	..	10
Ifield	2033	..	1	1	1	3	..	2	..	2	1	..	..	..	11
Crawley	451	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Rusper	539	..	1	..	..	..	..	..	..	1	..	..	..	..	2
Warnham ..	1065	..	1	..	..	5	..	..	..	2	1	..	..	..	9
West Sub-dist.															
Slinfold ..	773	..	..	1	..	..	..	..	..	2	..	..	..	..	4
Itchingfield	434	..	..	3	..	2	..	1	..	2	..	..	..	..	6
Rudgwick ..	1122	..	4	..	..	2	..	1	..	1	1	..	1	..	10
Billingshurst	1611	..	2	..	..	5	..	..	..	4	..	..	..	..	13
Whole District	15487	1	17	10	11	31	..	9	4	24	3	..	1	5	116

HORSHAM RURAL SANITARY DISTRICT.

TABLE IV.—Showing the Deaths and Death-rate from all causes and from various causes in different localities in the seven years 1876-81.

LOCALITY.	Population in middle of period.	Deaths during the 6 years 1876-81 from					Annual death-rate per 100,000 living from				
		All Diseases	Zymotic Disease	Phthisis	Lung Disease	Heart Disease	All Diseases	Zymotic Disease	Phthisis	Lung Disease	Heart Disease
South Sub-District	4050	342	37	39	54	22	1407	152	160	222	90
North Sub-District.....	6700	546	46	59	103	33	1358	114	146	256	82
West Sub-District	3910	396	33	44	75	39	1688	140	187	319	166
Whole District.....	14660	1284	116	142	232	94	1450	130	160	261	105
In 1876	14306	243	27	27	42	17	1698	188	188	293	118
In 1877	14445	182	6	23	26	17	1260	41	159	180	117
In 1878	14588	204	14	21	38	16	1398	96	143	260	109
In 1879	14732	241	21	30	49	17	1635	142	203	332	115
In 1880	15350	217	26	19	47	14	1413	169	124	306	91
In 1881	15510	197	22	22	30	13	1270	141	141	193	83

A) TABLE OF DEATHS during the year 1881, in the Rural Sanitary District of HORSHAM, classified according to Diseases, Ages, and Localities, and showing also the Population of such Localities, and the Births therein during the year.

Names of Localities adopted for the purpose of these Statistics; public institutions being shown as separate localities.	POPULATION AT ALL AGES.	Registered Births.	MORTALITY FROM ALL CAUSES AT SUBJOINED AGES.							MORTALITY FROM SUBJOINED CAUSES, DISTINGUISHING DEATHS OF CHILDREN UNDER FIVE YEARS OF AGE.																								
	Census 1881.		At all ages	Under 1 year	1 and under 5	5 and under 15	15 and under 25	25 and under 60	60 and upwards		Cont. Fevers.									Typhus	Enteric or Typhoid	Other or doubtful	Diarrhoea and Dysentery	Cholera	Rheumatic Fever	Erysipelas	Pyæmia	Puerperal Fever	Ague	Phthisis	Bronchitis Pneumonia and Pleurisy	Heart Disease	Injuries	Other Diseases
											Small Pox	Measles	Scarlatina	Diphtheria	Croup (not "spasmodic")	Whooping Cough	18	19	20															
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32			
SOUTH HORSHAM SUB-DISTRICT.	4,083	142	55	12	3	6	—	13	21	Under 5						2												3			10			
										5 upwds				2					1	1					1		6	3	5		21			
NORTH HORSHAM SUB-DISTRICT.	7,464	231	81	14	6	—	5	28	28	Under 5						4				1								5			10			
										5 upwds										1		1			1		7	12	2	5	32			
WEST HORSHAM SUB-DISTRICT.	3,940	130	48	11	5	2	4	12	14	Under 5						2				2								3			9			
										5 upwds			1								1						9	2	6	1	12			
HORSHAM WORKHOUSE.			19	4	—	—	—	2	13	Under 5																				1	3			
										5 upwds													1					4			10			
										Under 5																								
										5 upwds																								
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										Under 5																								
										5 upwds																								
TOTALS	15,487	503	203	41	14	8	9	55	76	Under 5						8				3								11		1	32			
										5 upwds			1	2					1	2		2		1	2		22	21	13	6	75			
Deaths occurring outside the district among persons belonging thereto										Under 5																								
										5 upwds																								
Deaths occurring within the district among persons not belonging thereto.....			6	1	—	—	—	—	5	Under 5																					1			
										5 upwds																		2			3			

(B) TABLE OF NEW CASES OF SICKNESS coming to the knowledge of the Medical Officer of Health, during the year 1881 in the Rural Sanitary District of HORSHAM, classified according to Localities and Diseases.

NAMES OF LOCALITIES.	NEW CASES OF SICKNESS IN PERSONS BELONGING TO THE DISTRICT, DISTINGUISHING THOSE IN CHILDREN UNDER FIVE YEARS OF AGE.																	Other Diseases, such as Chicken Pox or Pn�umonia, which the Medical Officer of Health thinks well to record.
		Smallpox	Measles	Scarlatina	Diphtheria	Croup (not "spasmodic")	Whooping Cough	Cont. Fevers.			Diarrhoea and Dysentery	Cholera	Rheumatic Fever	Erysipelas	Py�mia	Puerperal Fever	Ague	
	11	12	13	14	15	16	17	Typhus	Enteric or Typhoid	Other or Doubtful	21	22	23	24	25	26	27	
SOUTH SUB-DISTRICT.	Under 5 ...				1		2				1							
	5 upwards				2						4			1				
NORTH SUB-DISTRICT.	Under 5 ...			1			3											
	5 upwards			2							2							
WEST SUB-DISTRICT.	Under 5 ...						9				1							
	5 upwards						4				7			1				
	Under 5 ...																	
	5 upwards																	
	Under 5 ...																	
	5 upwards																	
	Under 5 ...																	
	5 upwards																	
	Under 5 ...																	
	5 upwards																	
	Under 5 ...																	
	5 upwards																	
	Under 5 ...																	
	5 upwards																	
Totals	Under 5 ...			1	1		14				2							
	5 upwards			2	2		4				13			2				

Sources of information :—In Workhouse and Workhouse Infirmary, 43. Among Out-door Paupers, 513.

RURAL SANITARY DISTRICT OF PETWORTH.

POPULATION 10,138 in 1871; 9563 in 1881. AREA IN
ACRES 44,747. NO. OF HOUSES (1871), 2,008.

During the year 1881 the births of 292 children and the deaths of 158 persons were registered; of the births 157 were male and 135 were female; of the deaths 84 were male and 74 were female. There are three Workhouses in this district and fifteen indoor paupers died during the year; these deaths are distributed among the several parishes whence each inmate came, viz., Wisborough Green 2, Northchapel 2, Kirdford 3, Petworth 5, Egdean 1, Fittleworth 1, and Barlavington 1; in all 15.

The deaths in each parish were thus distributed:—Wisborough Green 39, Northchapel 17, Kirdford 29, Petworth 41, Egdean 4, Fittleworth 13, Stopham 1, Coates 0, Burton 1, Duncton 3, Barlavington 1, Sutton 2, Bignor 1, Bury 6; in all 158.

In Petworth Cottage Hospital there was one death which is included in Kirdford.

POPULATION.--The population has decreased since the census in 1871, and the diminution is most marked in Petworth parish, as may be seen by the following table:—

	1861.	1871.	1881.
North Sub-district	4251	4345	4160
Petworth Parish	3368	3304	2942
Rest of South Sub-district	2446	2489	2461
	<hr/>	<hr/>	<hr/>
	10,065	10,138	9,563

Estimating the population in the middle of the year at 9550, the birth-rate was equal to 30·6 and the death-rate was equal to 16·5 per 1000 persons living.

Throughout England and Wales the birth-rate during the past year was equal to 33·9, and the death-rate was equal to 18·9 per 1000; in small towns and country parishes the rate of mortality was 16·8 per 1000, while in the chief towns the rate was equal to 20·3 per 1000 persons living.

The births and deaths in the whole of the district during the past seven years have been as follows :—

Year	Births	Birth-rate	Deaths	Death-rate
1875	323	32·5	178	17·9
1876	264	26·7	157	15·8
1877	296	30·1	148	15·0
1878	280	28·6	184	18·8
1879	298	30·8	160	16·5
1880	267	27·8	136	14·1
1881	292	30·6	158	16·5
Mean	288·5	29·5	160·1	16·4

In each quarter the births and deaths were as follows :—

		Births.			Deaths.		
		M.	F.	Total.	M.	F.	Total.
1st Quarter	..	46	40	86	20	23	43
2nd „	...	35	37	72	27	15	42
3rd „	...	49	32	81	13	19	32
4th „	...	27	26	53	24	17	41
Total	...	157	135	292	84	74	158

The births and deaths in each quarter of the past three years are here contrasted :—

		Births.				Deaths.			
		1879.	1880.	1881.	Total.	1879.	1880.	1881.	Tl.
1st Quarter	..	69	71	86	226	51	43	43	137
2nd „	...	84	79	72	235	47	30	42	119
3rd „	...	56	63	81	200	26	24	32	82
4th „	...	89	54	53	196	36	39	41	116
Total	...	298	267	292	857	160	136	158	454

The deaths at different groups of ages in each quarter are here shown :—

	Under 1 year.	1--5.	5--15.	15--25.	25--60.	60 and Upwds.	Tl.
1st Quarter... 12	3	1	3	5	19	43	
2nd „ ... 7	4	4	4	10	13	42	
3rd „ ... 5	1	1	1	5	19	32	
4th „ ... 4	2	3	1	14	17	41	
	—	—	—	—	—	—	
	28	10	9	9	34	68	158

The following table shows the birth-rate in different localities for a term of years :—

	1876.	1877.	1878.	1879.	1880.	1881.	Mean of six years
North Sub-district	27·5	32·1	28·9	28·8	28·5	30·3	29·3
Petworth Parish	26·0	28·4	29·0	33·3	28·3	30·3	29·2
Rest of south sub-dist.	26·2	28·7	27·5	31·2	25·9	31·3	28·4
Total.	26·7	30·1	28·6	30·8	27·8	30·6	29·1

There is not much difference in the birth-rate in the different parts of this district. In each case the rate is low, and this is due to there being an excessive proportion of people at the more advanced periods of life.

The population is declining ; young adults leave the district in search of employment and so the number of persons in this locality capable of bearing children is diminished also.

The *infant mortality* is here given as measured by the number of deaths under one year to the total number of births in the year :—

	Births.	Deaths under 1 year.	Ratio to 1000 births.
North Sub-district	126	14	111
Petworth Parish	89	9	101
Rest of South Sub-dist.	77	5	65
Whole of District ...	292	28	95

Throughout England and Wales there were during the year 130 deaths of infants under one year of age to every 1000 children born, against a rate of 158, 146, 136, 152, 135 and 153 in the six preceding years; the proportion of infant mortality averaged 149 per 1000 during the ten years, 1871-80.

The following table shows the ratio of infant mortality in different localities during the past six years :—

	1876.	1877.	1878.	1879.	1880.	1881.	Mean of the six years.
North sub-district	111	51	121	66	33	111	82
Petworth Parish	109	67	111	110	83	101	96
Rest of south sub-district	61	84	88	117	78	65	82
Whole district	106	64	110	94	60	95	87

The deaths from *zymotic* or catching disorders were four in number ; in the six previous years there were respectively 10, 14, 8, 17, 13 and 12 deaths.

The four deaths included one from enteric fever and three from diphtheria.

The rate of mortality from these disorders was 0·4 per 1000

persons living, against a rate of 1·0, 1·4, 0·8, 1·7, 1·3 and 1·2 in the six preceding years.

Throughout England and Wales the annual death-rate from the seven principal zymotic diseases alone was 2·24 per 1000, against 2·44 and 3·30 in the two preceding years.

Table II. shows the deaths and death-rate in each of the past seven years from this class of disorders, while Table III. shows the prevalence of these diseases in each parish during the same period.

DRAINAGE.—Nothing further was done in the matter of draining Petworth, because there was no method of flushing the sewers.

WATER-SUPPLY.—The question of water-supply was discussed frequently in the course of the year by the Sanitary Authority and by the Parochial Committee. In November it was stated that a scheme for supplying the town with water had been decided upon by Lord Leconfield, and that it only awaited confirmation by certain preliminaries which must be gone through before the works are commenced; that an agreement was being prepared by Lord Leconfield's solicitors, which will have to be submitted to the inhabitants and to the Rural Sanitary Authority for approval, and when that is settled the works will be put in hand. There can be but little doubt that by the end of the coming year the town of Petworth will have an excellent supply of pure and wholesome water.

There were four deaths returned as "not certified" out of a total of 158; male, 3 years, cause not stated; female, 89 years, old age, female, 53 years, heart disease; male, 72 years, heart disease.

All these uncertified deaths occurred in the south sub-district.

Inquests were held in six cases; female, 9 weeks, natural causes, disease of the lungs; male, 64 years, natural causes, disease of the heart; male, 2 years, accidentally drowned in a mill-pond; male, 64 years, suicide by hanging; male, 30 years, suicide by drowning; male, 60 years, found drowned.

There were three deaths in the north sub-district of children born out of wedlock; female, 9 weeks, natural causes, disease of the lungs, inquest held; female, 2 days, debility from birth, certified; male, 3 weeks, debility from birth, certified. In the south sub-district there were no deaths of illegitimate children.

A few cases of overcrowding were dealt with during the year and the nuisance was abated.

No cases occurred in which it was found necessary to condemn meat or any other article of food.

The slaughter-houses and bakehouses have been inspected at intervals and they have been kept in a cleanly state.

There is one common lodging house in the district and this has been kept in a proper state.

No proceedings were taken before the magistrates during the year.

There were 522 new cases of pauper sickness during the year, against 1140, 866, 812, 826, 702 and 700 in the six preceding years. The district was very healthy during the year, and the amount of pauper sickness was much less than usual.

RAINFALL.—The amount of rainfall during the year was taken daily by the Rev. C. Holland, Rector of Petworth, who has kindly allowed me to use his tables.

Month.	Total depth in inches.		No. of rainy days.		Rainfall in 1880.	
January	...	1.42	...	6	...	0.74
February	...	3.46	...	10	...	5.87
March	...	3.07	...	9	...	2.30
April	...	0.54	...	4	...	2.36
May	...	1.30	...	7	...	0.22
June	...	1.69	...	11	...	2.47
July	...	3.09	...	7	...	3.91
August	...	5.94	...	17	...	2.46
September	...	2.82	...	13	...	6.52
October	...	2.13	...	9	...	9.81
November	...	5.44	...	12	...	5.97
December	...	3.99	...	10	...	3.75
Total.....	...	34.89	...	115	...	46.38

The rain gauge is placed 1ft. 4in. above the ground and 190ft. above the sea level; diameter of funnel, five inches.

The accompanying tables are of interest in so far as they show the sanitary state of the district.

Table I. shows the deaths at various groups of ages during the last seven years. The rate of mortality at different ages may be calculated from these figures when the ages of the population at the last census are published.

Tables II. and III. show the mortality from zymotic diseases for each year and for each parish. Diphtheria heads the list, as regards frequency, followed by whooping-cough, scarlatina, enteric fever, diarrhoea, measles and puerperal fever, while the other disorders rarely prove fatal.

Table IV. gives the deaths and death-rate from all causes and from various causes during the past seven years.

The figures have been revised and the estimates of population have been carefully corrected.

The *general* death-rate was 18·5 per 1000 in the ten years 1851-60 ; it was 19·3 per 1000 in the ten years 1861-70, and it was 16·4 per 1000 in the seven years 1875-81.

The *zymotic* death-rate was 271 in 1851-60 ; 319 in 1861-70, while in 1875-81 it was 113 per 100,000 persons living.

The *phthisis* death-rate was 283 in 1851-60 ; 226 in 1861-70, while in 1875-81 it was 157 per 100,000 persons living.

The *lung disease* death-rate was 211 in 1851-60 ; 230 in 1861-70, while in 1875-81 it rose to 298 per 100,000 persons living.

The death-rate from *heart disease* during the last seven years has been on the average 135 per 100,000 persons living.

PETWORTH RURAL SANITARY DISTRICT.

TABLE I.—Showing the Deaths at various groups of ages in the seven years 1875-81.

YEAR.	At all Ages.	Under 1 year.	1 and under 5.	5 and under 15.	15 and under 25.	25 and under 60.	60 and upwards.
1875	178	26	17	11	12	33	79
1876	157	26	19	2	7	41	62
1877	148	19	5	11	7	40	66
1878	184	31	11	11	11	37	83
1879	160	28	13	13	11	27	68
1880	136	16	10	9	8	27	66
1881	158	28	10	9	9	34	68
TOTAL	1121	174	85	66	65	239	492
Mean ...	160.1	24.8	12.1	9.4	9.3	34.1	70.3

TABLE II.—Showing the Deaths and Death-rate in each of the seven years 1875-81 from Zymotic Diseases.

YEAR,	Small-pox.	Measles.	Scarlatina.	Diphtheria.	Whooping Cough.	Cont. Fevers.			Diarrhoea and Dysentery.	Rheumatic Fever.	Erysipelas	Pyæmia.	Puerperal Fever.	TOTAL.	Rate per 1000 persons living.
						Typhus.	Enteric or Typhoid	Other or Doubtful.							
1875 ...	...	...	1	5	2	...	...	...	1	...	1	...	...	10	1.0
1876 ...	...	...	3	4	2	...	...	...	1	1	..	...	3	14	1.4
1877 1	1	...	...	5	...	..	...	...	1	...	...	...	...	8	0.8
1878 ...	...	...	...	6	3	...	3	...	3	...	...	1	1	17	1.7
1879 ...	...	...	...	8	1	...	2	...	1	1	...	...	...	13	1.3
1880 ...	3	3	2	2	...	...	1	...	...	1	...	...	...	12	1.2
1881 ...	...	...	...	3	...	...	1	...	...	...	...	...	...	4	0.4
Tl	1	4	7	33	10	—	7	—	7	3	1	1	4	78	1.1

PETWORTH RURAL SANITARY DISTRICT.

TABLE III.—Showing the Total Deaths from Zymotic Diseases in each Parish in the 7 years 1875 81.

PARISH	Population census 1881	Small Pox	Measles	Scarlatina	Diphtheria	Whooping Cough	Cont. Fevers			Diarrhoea and Dysentery	Rheumatic Fever	Erysipelas	Pyæmia	Puerperal Fever	TOTAL
North Sub- district	{ 4160	..	..	..	5	1	Typhus	Enteric or Typhoid	Other or doubtful	1	..	..	..	..	7
		..	..	..	7	2	..	..	..	..	..	..	..	..	9
		..	..	..	8	1	..	..	..	..	..	..	..	2	11
	2942	1	4	5	7	5	..	5	..	2	..	1	..	2	32
South Sub-district.	{ 2461	..	..	..	1	..	..	..	..	2	2	..	1	..	6
		..	..	..	..	..	..	..	..	..	1	..	..	..	4
		..	..	1	..	..	..	2	..	..	..	..	..	..	4
	
	
	
	
	
	
	
	..	..	..	1	5	1	..	..	..	..	..	..	..	..	7
Whole District	9563	1	4	7	33	10	..	7	..	7	3	1	1	4	78

PETWORTH RURAL SANITARY DISTRICT.
TABLE IV.—Showing the Deaths and Death-rate from all causes and from various causes in different localities in the seven years 1876-81.

LOCALITY.	Population in middle of period.	Deaths during the 7 years 1875-81 from					Annual death-rate per 100,000 living from				
		All Diseases	Zymotic Disease	Phthisis	Lung Disease	Heart Disease	All Diseases	Zymotic Disease	Phthisis	Lung Disease	Heart Disease
North Sub-District.....	4216	484	27	41	101	33	1640	91	138	342	111
Petworth Parish.....	3095	372	32	50	61	26	1717	147	230	281	120
Rest of South Sub-District.....	2469	265	19	17	42	34	1533	109	98	242	197
Whole District.....	9780	1121	78	108	204	93	1640	113	157	298	135
In 1875	9936	178	10	19	28	23	1791	100	191	281	231
In 1876	9885	157	14	11	27	12	1588	141	111	273	121
In 1877	9833	148	8	19	20	13	1505	81	193	203	132
In 1878	9780	184	17	17	34	8	1881	173	173	346	82
In 1879	9657	160	13	17	35	15	1656	134	175	362	155
In 1880	9603	136	12	12	22	6	1416	124	124	229	62
In 1881	9550	158	4	13	38	16	1654	41	136	397	167

A) TABLE OF DEATHS during the year 1881, in the Rural Sanitary District of PETWORTH, classified according to Diseases, Ages, and Localities, and showing also the Population of such Localities, and the Births therein during the year.

[illegible]

(B) TABLE OF NEW CASES OF SICKNESS coming to the knowledge of the Medical Officer of Health, during the year 1881 in the Rural Sanitary District of PETWORTH, classified according to Localities and Diseases.

NAMES OF LOCALITIES.	NEW CASES OF SICKNESS IN PERSONS BELONGING TO THE DISTRICT, DISTINGUISHING THOSE IN CHILDREN UNDER FIVE YEARS OF AGE,																	Other Diseases, such as Chicken Pox or Pneumonia, which the Medical Officer of Health thinks well to record.
	11	Smallpox 12	Measles 13	Scarlatina 14	Diphtheria 15	Croup (not "spasmodic") 16	Whooping Cough 17	Cont. Fevers.			Diarrhoea and Dysentery 21	Cholera 22	Rheumatic Fever 23	Erysipelas 24	Pyæmia 25	Puerperal Fever 26	Ague 27	
								Typhus 18	Enteric or Typhoid 19	Other or Doubtful 20								
NORTH SUB-DISTRICT.	Under 5 ...			2	2						1							
	5 upwards			3	13						10			1				
PETWORTH PARISH.	Under 5 ...																	
	5 upwards										1		1					
REST OF SOUTH SUB-DISTRICT.	Under 5 ..										6							
	5 upwards										2		2	1				
	Under 5 ...																	
	5 upwards																	
	Under 5 ...																	
	5 upwards																	
	Under 5 ...																	
	5 upwards																	
	Under 5 ...																	
	5 upwards																	
	Under 5 ...																	
	5 upwards																	
	Under 5 ..																	
	5 upwards																	
	Under 5 ...																	
	5 upwards																	
Totals	Under 5 ...			2	2						7							
	5 upwards			3	13						13		3	2				

Sources of information :—In Workhouse and Workhouse Infirmary, 33. Among Out-door Paupers, 489. As in-patients of Petworth Cottage Hospital, 10.

RURAL SANITARY DISTRICT OF THAKEHAM.

POPULATION 8,422 in 1871 ; 8,295 in 1881. AREA IN ACRES
38,784. NO. OF HOUSES 1705 in 1871 ; 1652 in 1881.

During the year 1881 the births of 231 children and the deaths of 114 persons were registered ; of the births 118 were male and 113 were female ; of the deaths 63 were male and 51 were female.

There were six deaths in the Thakeham Workhouse which is situated in the Washington sub-district, and these deaths have been distributed among the several parishes whence each inmate came, viz :—Pulborough 1, West Chiltington 2, Sullington 1, Wiston 1, Washington 1 ; in all 6.

In each parish the deaths were as follows :—North Stoke 3, Amberley 11, Rackham 4, Greatham 0, Hardham 0, Cold Waltham 12, Wiggonholt 0, Pulborough 19, West Chiltington 10, Parham 0, Storrington 22, Sullington 2, Thakeham 8, Warminghurst 1, Ashington 1, Wiston 5, Washington 8, Findon 8 ; in all 114.

POPULATION.—In this district the population decreased slightly during the past decade, and this diminution existed in each of the two registration sub-districts.

		1861.		1871.		1881.
Pulborough Sub-district	...	4,121	...	3,979	...	3,898
Washington	,,	3,915	...	4,443	...	4,397
		<hr/>		<hr/>		<hr/>
Total	... ..	8,036		8,422		8,295

Storrington, Amberley and Findon are the parishes which have slightly increased in population ; in the other parishes the population is stationary or it has slightly declined.

In accordance with the recent census returns, the birth-rates and the death-rates have been carefully revised and corrected.

Estimating the population in the middle of the year at 8290, the birth-rate was equal to 27·8, and the death-rate was equal to 13·7 per 1000 persons living.

Throughout England and Wales the birth-rate during the past year was equal to 33·9, and the death-rate was equal to 18·9 per 1000 ; in small towns and country parishes the rate of

mortality was 16·8 per 1000, while in the chief towns the rate was equal to 20·3 per 1000 persons living.

The births and deaths in the whole of the district during the past seven years have been as follows :—

Year	Births	Birth-rate	Deaths	Death-rate
1875	260	31·0	169	20·1
1876	272	32·5	128	15·3
1877	284	34·0	107	12·8
1878	257	30·8	141	16·9
1879	275	33·0	127	15·2
1880	269	32·4	148	17·8
1881	231	27·8	114	13·7
Mean	264	31·6	133·4	16·0

In each quarter the births and deaths were as follows :—

		Births.			Deaths.		
		M.	F.	Total.	M.	F.	Total.
1st Quarter	..	28	27	55	21	12	33
2nd	„	37	19	56	12	16	28
3rd	„	30	35	65	10	8	18
4th	„	23	32	55	20	15	35
Total	...	118	113	231	63	51	114

The following table shows the births and deaths in each quarter of the past three years :—

		Births.				Deaths.			
		1879	1880	1881	Tl.	1879	1880	1881	Tl.
1st Quarter	..	75	79	55	209	37	40	33	110
2nd	„	67	77	56	200	36	41	28	105
3rd	„	63	51	65	179	19	41	18	78
4th	„	70	62	55	187	35	26	35	96
Total	...	275	269	231	775	127	148	114	389

The deaths at various groups of ages in each quarter are here shown :—

		Under 1 year.	1--5.	5--15.	15--25.	25--60.	60 and Upwds.	Tl.
1st Quarter	...	2	3	—	1	9	18	33
2nd	„	3	2	3	2	9	9	28
3rd	„	4	1	—	—	5	8	18
4th	„	5	4	3	3	9	...	35
Total	...	14	10	6	6	32	46	114

The following table shows the birth-rate in different localities for a term of years :—

	1876	1877	1878	1879	1880	1881	Mean of 6 yrs.
Pulborough Parish	32·7	32·2	35·6	30·2	36·4	30·4	32·9
Rest of Pulborough							
Sub-district ...	29·4	32·8	25·3	35·3	33·4	26·3	30·4
Storrington Parish	27·6	31·9	26·0	31·8	20·1	30·2	27·9
Rest of Washington							
Sub-district ...	36·5	36·7	33·8	34·0	34·6	26·3	33·6
Total ...	32·5	34·0	30·8	33·0	32·4	27·8	31·7

The *infant mortality* is here given as measured by the number of deaths under one year to the total number of births in the year :—

	Births,	Deaths under 1 year,	Ratio to 1000 births.
Pulborough Parish.....	55	2	36
Rest of Pulborough			
Sub-district	55	4	72
Storrington Parish.....	41	3	73
Rest of Washington			
Sub-district.....	80	5	62
Whole of District ...	231	14	60

Throughout England and Wales there were during the year 130 deaths of infants under one year of age to every 1000 children born, against a rate of 158, 146, 136, 152, 135 and 153 in the six preceding years; the proportion of infant mortality averaged 149 per 1000 during the ten years, 1871-80.

The following table shows the ratio of infant mortality in different localities during the past six years :—

	1876.	1877.	1878.	1879.	1880.	1881.	Mean of the six years.
Pulborough Parish	100	101	92	54	96	36	80
Rest of Pulborough Sub-							
district	193	14	188	151	114	72	122
Storrington Parish	57	49	58	71	37	73	57
Rest of Washington Sub-							
district	60	61	76	29	169	62	76
Whole district	99	56	101	72	119	60	85

The deaths from *zymotic* or catching disorders were six in number; in the six previous years there were respectively 23, 20, 8, 9, 9 and 29 deaths from this group of disorders.

The six deaths included 2 from scarlatina, 3 from diphtheria, and one from enteric fever.

The rate of mortality from these disorders was 0·7 per 1000 persons living, against a rate of 2·7, 2·3, 0·9, 1·0, 1·0 and 3·4 in the six preceding years.

Throughout England and Wales the annual death-rate from the seven principal zymotic diseases alone was 2·24 per 1000, against 2·44 and 3·30 in the two preceding years.

Table II. shows the deaths and death-rate in each of the past seven years from this class of disorders, while Table III. shows the prevalence of these diseases in each parish during the same period.

There was one death returned as "not certified" in the Washington sub-district out of a total of 55; male, 2 hours, convulsions. In the Pulborough sub-district no information on this point is given.

There were no deaths in the Washington sub-district of any children born out of wedlock. In the Pulborough sub-district information on this point is not given.

Inquests were held in six cases; male, 51 years, suicide by drowning in the river Arun, whilst of unsound mind; male, 34 years, suicide by hanging, whilst of unsound mind; male, 59 years, accidentally killed by horses running away with a plough; male, 25 years, knocked down and run over by truck on line of rail; male, 16 years, accidentally knocked down by a truck; female, 47 years, natural causes.

A few cases of overcrowding were dealt with during the year and the nuisance was abated.

No cases occurred in which it was found necessary to condemn meat or any other article of food.

The slaughter-houses and bakehouses have been inspected at intervals and they have been kept in a cleanly state.

There is no common lodging house in the district.

No proceedings were taken before the magistrates during the year.

There were 155 new cases of pauper sickness during the year, against 290, 237, 187, 206, 170 and 226 in the six preceding years.

The accompanying tables are of interest in so far as they show the sanitary state of the district.

Table I. shows the deaths at various groups of ages during the last seven years.

Tables II. and III. show the mortality from zymotic diseases for each year and for each parish. Whooping-cough heads the list, as regards frequency, followed by diarrhoea, scarlatina, diphtheria and measles, while the other disorders rarely prove fatal.

Table IV. gives the deaths and death-rate from all causes and from various causes during the past seven years.

The *general* death-rate was 18·2 per 1000 in the ten years 1851-60 ; it was 16·4 per 1000 in the ten years 1861-70, and it was 16·0 per 1000 in the seven years 1875-81.

The *zymotic* death-rate was 402 in 1851-60 ; 292 in 1861-70, while in 1875-81 it was 178 per 100,000 persons living.

The *phthisis* death-rate was 285 in 1851-60 ; 221 in 1861-70, while in 1875-81 it was 145 per 100,000 persons living.

The *lung disease* death-rate was 189 in 1851-60 ; 197 in 1861-70, while in 1875-81 it rose to 288 per 100,000 persons living.

The death-rate from *heart disease* during the last seven years has been on the average 133 per 100,000 persons living.

THAKEHAM RURAL SANITARY DISTRICT.

TABLE I.—Showing the Deaths at various groups of ages in the seven years 1875-81.

YEAR.	At all Ages.	Under 1 year.	1 and under 5.	5 and under 15.	15 and under 25.	25 and under 60.	60 and upwards.
1875	169	27	28	4	7	32	71
1876	128	28	7	4	9	25	55
1877	107	16	10	4	5	27	45
1878	141	26	8	4	9	28	66
1879	127	20	7	4	6	23	67
1880	148	32	20	7	9	34	46
1881	114	14	10	6	6	32	46
TOTAL ..	934	163	90	33	51	201	396
Mean ...	133.4	23.3	12.8	4.7	7.3	28.7	56.6

TABLE II.—Showing the Deaths and Death-rate in each of the seven years 1875-81 from Zymotic Diseases.

YEAR,	Small-pox.	Measles.	Scarlatina.	Diphtheria.	Whooping Cough.	Cont. Fevers.			Diarrhoea and Dysentery.	Rheumatic Fever.	Erysipelas	Pyæmia.	Puerperal Fever.	TOTAL.	Rate per 1000 persons living.
						Typhus.	Enteric or Typhoid	Other or Doubtful.							
1875	1	2	10	...	...	...	9	1	...	...	...	23	2.7
1876	1	4	...	9	1	...	...	4	...	1	...	...	20	2.3
1877	6	...	1	...	...	...	...	...	...	1	...	8	0.9
1878	2	...	...	2	...	1	...	2	...	2	...	...	9	1.0
1879	1	3	...	1	...	2	1	...	1	...	9	1.0
1880	1	1	...	24	...	...	...	3	...	...	...	...	29	3.4
1881	2	3	...	...	...	...	1	...	...	...	...	6	0.7
Tl —	—	4	14	6	49	1	2	—	21	2	3	2	—	104	1.7

THAKEHAM RURAL SANITARY DISTRICT.

TABLE III.—Showing the Total Deaths from Zymotic Diseases in each Parish in the 7 years 1875-81.

PARISH	Population census 1881	Small Pox	Measles	Scarlatina	Diphtheria	Whooping Cough	Cont. Fevers			Diarrhoea and Dysentery	Rheumatic Fever	Erysipelas	Pyæmia	Puerperal Fever	TOTAL
Pulborough Sub-district.	North Stoke	103	..	..	..	2	Typhus	Enteric or Typhoid	Other or doubtful	1	..	..	..	..	3
	Amberley	570	1	2	2	2	..	..	..	2	1	..	1	..	11
	Rackham	161	1	..	..	4	..	..	..	1	..	..	..	..	6
	Greatham	59	..	..	..	..	..	..	..	..	..	..	..	..	..
	Hardham	101	..	..	..	..	..	..	..	..	..	..	..	..	..
	Cold Waltham	389	..	..	..	2	..	..	..	..	..	..	..	..	2
	Wiggonholt	38	..	..	..	..	..	..	..	..	..	..	..	..	..
	Pulborough	1808	1	3	..	7	..	1	..	4	..	1	1	..	17
	West Chiltington ..	669	..	..	..	5	..	1	..	2	..	..	..	..	9
	Parham	88	..	..	..	..	..	..	..	..	..	..	..	..	..
Washington Sub-district.	Storington	1351	..	1	3	7	..	..	..	1	..	1	..	..	13
	Sullington	192	..	3	..	3	..	..	..	3	..	1	..	..	10
	Thakeham	547	..	..	..	4	1	..	..	1	..	..	..	..	6
	Warminghurst	97	..	3	..	..	..	..	..	1	..	..	..	..	4
	Ashington	255	..	..	..	1	..	..	..	1	..	..	..	..	2
	Wiston	315	..	..	..	2	..	..	..	1	..	..	..	..	3
	Washington	844	1	1	..	8	..	..	..	2	1	..	..	..	12
	Findon	708	..	..	1	2	..	..	..	1	..	..	..	..	6

Whole District	8295	..	4	14	6	49	1	2	..	21	2	3	2	..	104

THAKEHAM RURAL SANITARY DISTRICT.

TABLE IV.—Showing the Deaths and Death-rate from all causes and from various causes in different localities in the seven years 1875-81.

LOCALITY.	Population in middle of period.	Deaths during the 7 years 1875-81 from					Annual death-rate per 100,000 living from				
		All Diseases	Zymotic Disease	Phthisis	Lung Disease	Heart Disease	All Diseases	Zymotic Disease	Phthisis	Lung Disease	Heart Disease
Pulborough Parish	1823	198	17	22	25	13	1551	133	172	195	101
Rest of Pulborough Sub-Dist...	2099	272	31	29	44	25	1837	211	197	299	170
Storrington Parish	1303	122	13	13	33	10	1337	142	142	361	109
Rest of Washington Sub-Dist.	3105	342	43	21	66	30	1573	197	96	303	138
Whole District.....	8330	934	104	85	168	78	1601	178	145	288	133
In 1875	8371	169	23	6	40	14	2018	274	71	477	167
In 1876	8357	128	20	13	13	19	1531	239	155	155	227
In 1877	8343	107	8	9	21	2	1282	95	107	251	24
In 1878	8330	141	9	16	26	11	1692	108	192	312	132
In 1879	8316	127	9	9	26	16	1527	108	108	312	192
In 1880	8302	148	29	15	28	8	1782	349	180	337	96
In 1881	8290	114	6	17	14	8	1375	72	205	168	96

(A) TABLE OF DEATHS during the year 1881, in the Rural Sanitary District of THAKEHAM, classified according to Diseases, Ages, and Localities, and showing also the Population of such Localities, and the Births therein during the year.

[illegible]

(B) TABLE OF NEW CASES OF SICKNESS coming to the knowledge of the Medical Officer of Health, during the year 1881 in the Rural Sanitary District of THAKEHAM, classified according to Localities and Diseases.

NAMES OF LOCALITIES.	NEW CASES OF SICKNESS IN PERSONS BELONGING TO THE DISTRICT, DISTINGUISHING THOSE IN CHILDREN UNDER FIVE YEARS OF AGE,																		Other Diseases, such as Chicken Pox or Pneumonia, which the Medical Officer of Health thinks well to record.
	11	Smallpox 12	Measles 13	Scarlatina 14	Diphtheria 15	Croup (not "spasmodic") 16	Whooping Cough 17	Cont. Fevers.			Diarrhoea and Dysentery 21	Cholera 22	Rheumatic Fever 23	Erysipelas 24	Pyæmia 25	Puerperal Fever 26	Ague 27		
								Typhus 18	Enteric or Typhoid 19	Other or Doubtful 20									

PULBOROUGH PARISH.	Under 5 ...																	
	5 upwards							3		1								
REST OF PULBOROUGH SUB-DISTRICT.	Under 5 ...			3														
	5 upwards			5									1					
STORRINGTON PARISH.	Under 5 ...			2														
	5 upwards			3	1													
REST OF WASHINGTON SUB-DISTRICT.	Under 5 ...																	
	5 upwards									1			1					
	Under 5 ...																	
	5 upwards																	
	Under 5 ...																	
	5 upwards																	
	Under 5 ...																	
	5 upwards																	
	Under 5 ...																	
	5 upwards																	
	Under 5 ...																	
	5 upwards																	
	Under 5 ...																	
	5 upwards																	
Totals	Under 5 ...			5														
	5 upwards			8	1				3		2			2				

Sources of information :—In Workhouse and Workhouse Infirmary, 30. Among Out-door Paupers, 125.

RURAL SANITARY DISTRICT OF EAST PRESTON.

POPULATION 7,674 in 1871; 8,058 in 1881. AREA IN ACRES
30,320. No. OF HOUSES (1871) 1330.

During the year 1881 the births of 233 children and the deaths of 128 persons were registered; of the births 112 were male and 121 were female; of the deaths 70 were male and 58 were female.

There were 141 deaths actually registered in this district, but of this number 13 belonged to other districts, although they died in the East Preston Union Workhouse.

There were 26 deaths in the Workhouse, and these have been distributed among the several parishes whence each inmate came, viz., Broadwater 1, Goring 1, East Preston 1, Angmering 5, Leominster 4, Climping 1; of the remaining 13 deaths 8 belonged to Worthing, 3 to Littlehampton and 2 to Arundel, all of which are Urban Sanitary Districts.

In each parish the deaths were thus distributed:—

Broadwater 17, Heene 2, West Tarring 10, Clapham 3, Durrington 4, Goring 13, Ferring 2, Kingston 1, East Preston 1, Angmering 17, Leominster 33, Rustington 4, Climping 3, Ford 0, Tortington 1, Poling 4, Patching 5, Burpham 3, South Stoke 2, Houghton 3—in all, 128.

POPULATION.—The recent census returns show the following increases in the different sub-districts:—

	1861.	1871.	1881.
Worthing Sub-district	2,549	3,177	2,910
Littlehampton „	2,872	3,139	3,786
Arundel „	1,229	1,358	1,362
	—	—	—
Total	6,650	7,674	8,058

There has been a change in the area between 1871 and 1881, as in 1875 part of the parish of Broadwater was taken into the Worthing Local Board district. The population in 1871 of the *present* rural sanitary district was 6,937; the actual increase in the number of the inhabitants on the present area is, therefore, 1,121; the chief increase took place in the parishes of Broadwater and Leominster.

Estimating the population in the middle of the year at 8,080

the birth-rate was equal to 28·8, and the death-rate was equal to 15·8 per 1,000 persons living.

Throughout England and Wales the birth-rate during the past year was equal to 33·9, and the death-rate was equal to 18·9 per 1,000; in small towns and country parishes the rate of mortality was 16·8 per 1,000, while in the chief towns the rate was equal to 20·3 per 1,000 persons living.

The births and deaths in the whole of the district during the past seven years have been as follows :—

Year	Births		Birth-rate		Deaths		Death-rate
1875	214	...	29·0	...	131	...	17·7
1876	220	...	29·4	...	126	...	16·8
1877	234	..	30·8	...	131	...	17·2
1878	235	...	30·4	...	131	...	16·9
1879	234	...	30·0	...	125	...	15·9
1880	256	...	32·2	...	121	...	15·2
1881	233	...	28·8	...	128	...	15·8

Mean 232·3 ... 30·1 ... 128·7 ... 16·5

In each quarter the births and deaths were as follows :—

		Births.			Deaths.		
		M.	F.	Total.	M.	F.	Total.
1st Quarter	..	29	26	55	27	19	46
2nd „	...	29	27	56	20	13	33
3rd „	...	28	42	70	12	15	27
4th „	...	26	26	52	11	11	22
Total	...	112	121	233	70	58	128

The births and deaths in each quarter of the past three years are here contrasted :—

		Births.				Deaths.			
		1879	1880	1881	Tl.	1879	1880	1881	Tl.
1st Quarter	..	53	57	55	165	43	25	46	114
2nd „	...	54	65	56	175	18	29	33	80
3rd „	...	45	62	70	177	27	28	27	82
4th „	...	82	72	52	206	37	39	22	98
Total	...	234	256	233	723	125	121	128	374

The deaths at different groups of ages in each quarter are here shown :—

		Under 1 year.	1—5.	5—15.	15—25.	25—60.	60 and Upwds.	Tl.
1st Quarter	...	7	1	7	3	6	22	46
2nd „	...	7	4	4	1	7	10	33
3rd „	...	5	—	2	2	7	11	27
4th „	...	3	—	—	1	8	10	22
Total	...	22	5	13	7	28	53	128

The following table shows the birth-rate in each sub-district for a term of years :—

	1876	1877	1878	1879	1880	1881	Mean of 6 yrs.
Worthing sub-district ...	26·6	30·9	28·9	27·3	33·1	29·8	29·4
Littlehampton sub-district ..	29·1	31·2	31·5	32·2	29·5	28·6	30·3
Arundel sub-district	35·5	29·5	31·0	28·7	37·5	27·2	31·5
Total ...	29·4	30·8	30·4	30·0	32·2	28·8	30·2

The *infant mortality* is here given as measured by the number of deaths under one year to the total number of births in the year :—

	Births,	Deaths under 1 year,	Ratio to 1000 births.
Worthing sub-district.....	87	7	80
Littlehampton sub-district	109	11	101
Arundel sub-district	37	4	108
Whole of District ...	233	22	94

Throughout England and Wales there were during the year 130 deaths of infants under one year of age to every 1,000 children born, against a rate of 158, 146, 136, 152, 135 and 153 in the six preceding years; the proportion of infant mortality averaged 149 per 1,000 during the ten years, 1871-80.

The following table shows the ratio of infant mortality in each sub-district during the past six years :—

	1876.	1877.	1878.	1879.	1880.	1881.	Mean of the six years.
Worthing sub-district ...	183	71	75	103	179	80	115
Littlehampton „ ...	49	90	97	77	72	101	81
Arundel „ ...	20	75	119	179	39	108	90
Whole district	86	81	93	102	105	94	93

The deaths from *zymotic* or catching disorders, were 20 in number; in the six previous years there were respectively 5, 20, 11, 14, 1 and 16 deaths.

The 20 deaths included 5 from scarlatina, 9 from diphtheria, 1 from whooping-cough, 1 from diarrhoea, 2 from rheumatic fever, 1 from erysipelas, and 1 from puerperal fever.

The rate of mortality from these disorders was 2·4 per 1000 persons living, against a rate of 0·7, 2·7, 1·4, 1·8, 0·1, and 2·0 in the six preceding years.

Throughout England and Wales the annual death-rate from

the seven principal zymotic diseases alone was 2·24 per 1000, against 2·44 and 3·30 in the two preceding years.

Table II. shows the deaths and death-rate in each of the past seven years from this class of disorders, while Table III. shows the prevalence of these diseases in each parish during the same period.

Small Pox was on one occasion imported into the district.

A girl, aged 14 years, had been in service in London for seven months. On June 11th she came down to West Tarring to her parents, having felt poorly for a few days. On June 12th the rash of small-pox appeared in a modified form, and she made a good recovery. The girl had been vaccinated in infancy, and there were three good marks on her arm.

At the time of her return home there were several persons in the house, all of whom escaped infection.

Henry C., 68 years, had small-pox when a boy.

Mrs C., 60 years, re-vaccinated now.

Mrs B., 34 years, with her baby one year old.

Agnes C., 20 years.

Elsie C., 10 years.

All the inmates left the house on June 15th, except the parents, and all were re-vaccinated, except the father and the grandchild.

The clothing and bedding were destroyed, and the house was well fumigated with sulphur. There was no spread of the disease.

Scarlet Fever appeared in a malignant form at Broadwater in the early part of the year.

In one family where there were six children, two were taken ill on January 10th, and three more in the course of the following week; one died on January 23rd, and the rest recovered. The mother was also attacked and was confined on February 4th. She recovered, but the child died on February 15th, of "blood poisoning."

The cottage in which these people lived was in a very isolated position on the Downs; it was in good sanitary condition and most substantially built.

Another child, aged 11 years, was taken ill on March 23rd, and died after five days' illness; there were no other children in this house.

Nearly opposite was a house in which a boy, six years old, died on April 2nd, after a few days' illness; one other child was attacked, but recovered; the parents had never had scarlet fever.

There were a few other cases in the village, and there were also a few cases in the adjacent town of Worthing in the early

part of the year. The chief point to be noticed is the malignity of the outbreak ; the disease appeared in six or seven houses and yet there were four deaths out of about twenty cases. The same fact may be noticed in the Worthing report.

There was nothing in the sanitary condition of the dwellings or in the water or milk supply which could account for it.

Enteric Fever appeared once at Ferring. Charlotte F., aged 18 years, lived in service at Preston ; she was taken ill with scarlet fever, and she was sent to the Brighton Hospital, where she remained five weeks. She left there on November 1st and returned to her parents' cottage at Ferring. Soon after her return she fell ill with enteric fever, and she ascribed her illness to a case of enteric fever which died in the Hospital at the time she was recovering from scarlet fever.

She made a good recovery, but at the time of her return there were several inmates of the cottage and most of them were attacked in turn.

The parents were well all the time, but seven children were more or less affected. Harriet, 17 years, Alice 12 years, Elizabeth, 8 years, John, 6 years, Daniel, 4 years, and David 2 years were all attacked, but recovered. Charles, 15 years, fell ill on January 21st, 1882, and he died on February 1st. The inmates were attacked at varying intervals of a week or more, and the fever only ceased when all the children had had it. They lived in a roomy semi-detached cottage ; the next door neighbours who drank the same water did not have the disorder, nor did any one else in the neighbourhood catch it. It appears that in this case the fever was caught from one to the other and there can be little doubt that under certain conditions enteric fever is catching.

In the wards of a hospital where cleanliness is attended to and where all excreta are at once removed, it is very seldom that the disease is caught from one patient by another.

It is, however, different in the case of a labourer's cottage where such attention cannot be given and where the inmates breathe over and over again the infected air. Here, too, the fact of two grown up daughters being out of service, served to overcrowd the cottage, which was large enough for the family under ordinary circumstances.

Diphtheria broke out in April and May in the village of Goring.

In this village the houses are well made and most of them are isolated and surrounded by gardens. The people dwell by the sea shore and the cottages are built upon a loamy soil which here overlies the chalk. Goring lies between the South Downs and the sea ; the surface of the ground slopes gently southwards

and the underground water flows from the north-west towards the south-east.

The outbreak began with sore throats among the children attending the National School, and the first death was registered as croup on April 28th. In a few days another child in the same house died of diphtheria and six more deaths occurred in the course of the month of May.

The disease appeared in 11 houses occupied by 22 adults and 59 children. Of the adults, one died aged 60 years, and a few others complained of sore throats, but without any more well defined symptoms.

Of the 59 children 21 were attacked and 6 died; five of these were girls and one a boy. There were many circumstances in this outbreak which do not agree with those I have recorded in previous reports.

April and May were dry months, the rainfall in each being 0·78 inches and 1·16 inches respectively. In these two months the temperature was below the average of the 13 years 1857-69. but it was higher than in the two years immediately preceding.

Cold east winds were prevalent in April and the nights were cold, but most of the time the days were bright and clear with more sunshine than usual.

Atmospheric conditions were not unfavourable and this outbreak was probably due to personal intercourse at school.

Nearly all the cases first attacked went to the same school. Most of the houses were in a very good sanitary condition; they were substantially built, warm and dry. The water supply was good and abundant and in many cases earth-closets were used. None of the cottages had any drains in direct connection with the house. The milk supply was not a cause, as the different families were supplied from different sources, and but few of the children had any milk until the disease broke out.

The school was closed for some time, disinfected and cleansed.

The houses where the children fell ill were also disinfected and cleansed. By the end of May the epidemic had ceased. There were no cases at the time in Worthing or any neighbouring village.

A few cases of over-crowding were dealt with during the year.

There have been no cases during the year in which it was found necessary to condemn meat or any other article of food which had been exposed for sale.

The slaughter-houses and bakehouses have been inspected at intervals, and they have been kept in a cleanly state.

There is at the present time no common lodging house in the district.

No proceedings were taken before the magistrates during the year.

The returns of new cases of pauper sickness show that there were 374 during the year, against 359, 473, 374, 605, 379, and 338 in the six preceding years.

The accompanying tables are of interest in so far as they show the sanitary state of the district.

Table I. shows the deaths at various groups of ages during the last seven years. The rate of mortality at different ages may be calculated from these figures when the ages of the population at the last census are published.

Tables II. and III. show the mortality from zymotic diseases for each year and for each parish. Diarrhoea heads the list, as regards frequency, followed by diphtheria, scarlatina, whooping-cough, enteric fever and measles, while the other disorders rarely prove fatal.

Table IV. gives the deaths and death-rate from all causes and from various causes during the past seven years.

The figures have been revised and the estimates of population have been carefully corrected.

The *general* death-rate was 17·9 per 1000 in the ten years 1851-60; it was 18·2 in the ten years 1861-70, and it was 16·4 per 1000 in the seven years 1875-81.

The *zymotic* death-rate was 335 in 1851-60; it was 309 in 1861-70, while in 1875-81 it was 161 per 100,000 persons living.

The *phthisis* death-rate was 297 in 1851-60; it was 259 in 1861-70, while in 1875-81, it was 178 per 100,000 persons living.

The *lung disease* death-rate was 166 in 1851-60; it was 221 in 1861-70, while in 1875-81, it was 205 per 100,000 persons living.

The death-rate from *heart disease* during the last seven years has been on the average 165 per 100,000 persons living.

EAST PRESTON RURAL SANITARY DISTRICT.
TABLE I.—Showing the Deaths at various groups of ages in
the seven years 1875-81.

YEAR.	At all Ages.	Under 1 year.	1 and under 5.	5 and under 15.	15 and under 25.	25 and under 60.	60 and upwards.
1875	131	19	8	9	8	40	47
1876	126	19	24	8	7	28	40
1877	131	19	9	15	9	27	52
1878	131	22	18	3	6	27	55
1879	125	24	6	5	8	27	55
1880	121	27	9	6	3	31	45
1881	128	22	5	13	7	28	53
TOTAL ..	893	152	79	59	48	208	347
Mean ...	127.5	21.7	11.3	8.4	6.8	29.7	49.6

TABLE II.—Showing the Deaths and Death-rate in each of the
seven years 1875-81 from Zymotic Diseases.

YEAR,	Small-pox.	Measles.	Scarlatina.	Diphtheria.	Whooping Cough.	Cont. Fevers.			Diarrhoea and Dysentery.	Rheumatic Fever.	Erysipelas	Pyæmia.	Puerperal Fever.	TOTAL.	Rate per 1000 persons living.
						Typhus.	Enteric or Typhoid	Other or Doubtful.							
1875 ...	...	...	..	...	1	..	1	..	3	..	..	..	..	5	0.7
1876 ...	3	...	4	2	2	..	1	1	6	..	1	..	..	20	2.7
1877 ...	...	...	4	2	...	..	3	...	2	...	...	...	...	11	1.4
1878 ...	...	...	2	2	4	...	1	...	5	...	...	...	...	14	1.8
1879 ...	...	...	...	...	...	...	1	...	...	...	...	...	...	1	0.1
1880 ...	1	...	1	2	2	...	3	...	6	...	1	...	...	16	2.0
1881 ...	...	...	5	9	1	...	...	...	1	2	1	...	1	20	2.4
Tl —	4	16	17	17	10	—	10	1	23	2	3	—	1	87	1.6

EAST PRESTON RURAL SANITARY DISTRICT.

TABLE III.—Showing the Total Deaths from Zymotic Diseases in each Parish in the 7 years 1875-81.

PARISH	Population census 1881	Small Pox	Measles	Scarlatina	Diphtheria	Whooping Cough	Cont. Fevers			Diarrhoea and Dysentery	Rheumatic Fever	Erysipelas	Pyæmia	Puerperal Fever	TOTAL
Worthing Sub-district.	Broadwater .....	..	..	5	1	2	..	2	..	2	1	..	..	1	14
	Heene .....	..	..	1	1	..	..	1	..	1	..	..	..	..	4
	West Tarring .....	..	..	2	1	1	..	1	..	4	..	1	..	..	10
	Clapham .....	..	..	1	..	..	..	..	..	1	..	..	..	..	2
	Durrington .....	..	..	..	1	..	..	1	..	..	..	..	..	..	2
Littlehampton Sub-district.	Goring .....	..	..	1	7	..	..	..	..	2	..	..	..	..	10
	Ferring .....	..	..	1	..	..	..	1	..	..	..	..	..	..	2
	Kingston .....	..	..	..	..	2	..	..	..	..	..	..	..	..	..
	East Preston .....	..	..	2	3	..	..	..	..	1	..	..	..	..	3
	Angmering .....	..	2	1	3	4	..	1	..	2	..	..	..	..	7
Arundel Sub-district.	Leominster (part of)	3786	2	..	..	..	..	..	..	9	..	..	..	..	20
	Rustington .....	..	..	..	..	1	..	..	..	..	..	..	..	..	..
	Climping .....	..	..	..	..	..	..	..	..	..	..	..	..	..	1
	Ford .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Tortington	165	1	..	..	..	..	1	..	..	..	2	..	..	2
Arundel Sub-district.	Poling	180	..	..	..	..	..	..	..	..	..	..	..	..	2
	Patching	274	1	1	..	..	..	1	..	..	..	..	..	..	2
	Leominster (part of)	129	..	..	..	..	..	1	..	..	1	..	..	..	3
	Burpham	286	..	..	..	..	..	..	..	1	..	..	..	..	1
	South Stoke	133	..	1	..	..	..	..	..	..	..	..	..	..	1
Total..	Houghton	195	..	..	..	..	..	..	1	..	..	..	..	..	1
	Total..	8058	4	16	17	10	..	10	1	23	2	3	..	1	87

EAST PRESTON RURAL SANITARY DISTRICT.

TABLE IV.—Showing the Deaths and Death-rate from all causes and from various causes in different localities in the seven years 1875-81.

LOCALITY.	Population in 1878.	Deaths during the 7 years 1875-81 from					Annual death-rate per 100,000 living from				
		All Diseases	Zymotic Disease	Phthisis	Lung Disease	Heart Disease	All Diseases	Zymotic Disease	Phthisis	Lung Disease	Heart Disease
Worthing sub-district.....	2766	371	44	38	48	27	1916	227	196	247	139
Littlehampton sub-district	3590	360	31	43	41	33	1432	123	171	163	131
Arundel sub-district	1354	162	12	15	22	29	1709	126	158	232	305
Whole District.....	7710	893	87	96	111	89	1654	161	178	205	165
In 1875	7368	131	5	16	15	17	1777	67	217	203	230
In 1876	7478	126	20	15	14	8	1684	267	200	187	107
In 1877	7593	131	11	14	15	17	1725	144	184	197	223
In 1878	7710	131	14	17	18	11	1699	181	220	233	142
In 1879	7832	125	1	7	19	12	1596	12	89	242	153
In 1880	7955	121	16	15	15	9	1521	201	188	188	113
In 1881	8080	128	20	12	15	15	1584	247	148	185	185

(A) TABLE OF DEATHS during the year 1881, in the Rural Sanitary District of EAST PRESTON, classified according to Diseases, Ages, and Localities, and showing also the Population of such Localities, and the Births therein during the year.

Names of Localities adopted for the purpose of these Statistics ; public institutions being shown as separate localities.	POPULATION AT ALL AGES.	Registered Births.	MORTALITY FROM ALL CAUSES AT SUBJOINED AGES.							MORTALITY FROM SUBJOINED CAUSES, DISTINGUISHING DEATHS OF CHILDREN UNDER FIVE YEARS OF AGE.																						
	Census 1881.		At all ages	Under 1 year	1 and under 5	5 and under 15	15 and under 25	25 and under 60	60 and upwards		Small Pox	Measles	Scarlatina	Diphtheria	Croup (not "spasmodic"	Whooping Cough	Cont. Fevers.				Diarrhoea and Dysentery	Cholera	Rheumatic Fever	Erysipelas	Pyæmia	Puerperal Fever	Ague	Phthisis	Bronchitis Pneumonia and Pleurisy	Heart Disease	Injuries	Other Diseases
																	Typhus	Enteric or Typhoid	Other or doubtful													
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	
WORTHING SUB-DISTRICT.	2,910	87	49	7	4	11	1	8	18	Under 5			2	3		1												2			3	
										5 upwds			3	6								1			1		2	5	3	2	15	
LITTLEHAMPTON SUB-DISTRICT.	3,786	109	46	11	1	2	6	12	14	Under 5										1										1	10	
										5 upwds																	8	1	6	1	18	
ARUNDEL SUB-DISTRICT.	1,362	37	20	4	—			7	9	Under 5																		1			3	
										5 upwds												1	1				2	3	3	1	5	
EAST PRESTON WORKHOUSE;			26					2	24	Under 5																						
										5 upwds																		4	3	1	18	
										Under 5																						
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(B) TABLE OF NEW CASES OF SICKNESS coming to the knowledge of the Medical Officer of Health, during the year 1881 in the Rural Sanitary District of EAST PRESTON, classified according to Localities and Diseases.

NAMES OF LOCALITIES.	NEW CASES OF SICKNESS IN PERSONS BELONGING TO THE DISTRICT, DISTINGUISHING THOSE IN CHILDREN UNDER FIVE YEARS OF AGE,																		Other Diseases, such as Chicken Pox or Pneumonia, which the Medical Officer of Health thinks well to record.
	11	Smallpox 12	Measles 13	Scarlatina 14	Diphtheria 15	Croup (not "spasmodic") 16	Whooping Cough 17	Cont. Fevers.				Diarrhoea and Dysentery 21	Cholera 22	Rheumatic Fever 23	Erysipelas 24	Pyæmia 25	Puerperal Fever 26	Ague 27	
								Typhus 18	Enteric or Typhoid 19	Other or Doubtful 20									
WORTHING SUB-DISTRICT.	Under 5 ...			2			3				1			1					
	5 upwards			4					4		3		1	4					
LITTLEHAMPTON SUB-DISTRICT.	Under 5 ...										2			1					
	5 upwards																		
ARUNDEL SUB-DISTRICT.	Under 5 ...																		
	5 upwards								1										
	Under 5 ...																		
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	5 upwards																		
Totals	Under 5 ...			2			3				1			1					
	5 upwards			4					5		5		1	5					

Sources of information :—In Workhouse and Workhouse Infirmary, 26. Among Out-door Paupers, 348. As In-patients of Worthing Infirmary, 20. As Out-patients of Worthing Infirmary, 323.

RURAL SANITARY DISTRICT OF MIDHURST.

POPULATION 13,051 in 1871; 13,964 in 1881. AREA IN ACRES 65,755. NO. OF HOUSES (1871) 2623; 1881, 2,800.

During the year 1881 the births of 412 children and the deaths of 205 persons were registered; of the births 208 were male and 204 were female; of the deaths 118 were male and 87 were female.

There were 8 deaths in Easebourne Workhouse, and these have been distributed among the several parishes whence each inmate came, viz., Lodsworth 3, Midhurst 1, Woolbeding 2, Easebourne 1, Rogate 1; in all, 8.

In each parish the deaths were thus distributed:—East Lavington 2, West Lavington 4, Tillington 12, Lodsworth 15, Selham 0, Heyshott 11, Grafflam 2, Cocking 13, Midhurst 22, Woolbeding 5, Easebourne 12, South Ambersham 3, North Ambersham 2, Lurgashall 8, Fernhurst 20, Linchmere 5, Linch 1, Stedham 5, Iping 6, Trotton 6, Chithurst 5, Terwick 2, Rogate 13, Harting 21, Elsted 3, Treyford 4, Didling 0, Bepton 3; in all 205.

Estimating the population in the middle of the year at 13,987 the birth-rate during the past year was equal to 29·4 and the death-rate was equal to 14·6 per 1000 persons living. Throughout England and Wales, the birth-rate during the past year was equal to 33·9 and the death-rate was equal to 18·9 per 1000; in small towns and country parishes the rate of mortality was 16·8 per 1000, while in the chief towns the rate was equal to 20·3 per 1000 persons living.

The births and deaths in the whole of the district during the past six years have been as follows:—

Year	Births		Birth-rate		Deaths		Death-rate
1876	406	...	30·0	...	221	...	16·3
1877	429	..	31·5	...	189	...	13·9
1878	419	...	30·6	...	222	...	16·2
1879	414	...	30·0	...	233	...	16·8
1880	424	...	30·5	...	198	...	14·2
1881	412	...	29·4	...	205	...	14·6
Mean	417·3	...	30·4	...	211·3	...	15·3

In each quarter the births and deaths were as follows :—

		Births.			Deaths.		
		M.	F.	Total.	M.	F.	Total.
1st Quarter	...	56	67	123	32	23	55
2nd	„ ...	55	51	106	32	21	53
3rd	„ ...	47	47	94	28	18	46
4th	„ ...	50	39	89	26	25	51
Total		208	204	412	118	87	205

The births and deaths in each quarter of the past three years are here contrasted :—

		Births.				Deaths.			
		1879	1880	1881	Tl.	1879	1880	1881	Tl.
1st Quarter	..	96	127	123	346	71	66	55	192
2nd	„ ...	87	102	106	295	58	57	53	168
3rd	„ ...	125	104	94	323	50	39	46	135
4th	„ ...	106	91	89	286	54	36	51	141
Total		414	424	412	1250	233	198	205	636

The deaths at different groups of ages in each quarter are here shown :—

		Under 1 year.	1—5.	5—15.	15—25.	25—60.	60 and Upwds.	Tl.
1st Quarter	...	10	5	3	3	10	24	55
2nd	„ ...	8	6	1	2	14	22	53
3rd	„ ...	8	2	3	2	11	20	46
4th	„ ...	8	9	3	2	7	22	51
Total		34	22	10	9	42	88	205

The following table shows the birth-rate in different localities for a term of years :—

	1876	1877	1878	1879	1880	1881	Mean of 6 yrs.
Midhurst Parish	19·4	27·6	26·0	25·1	29·2	25·3	25·4
Rest of Midhurst							
sub-district	22·3	30·2	32·9	29·0	28·6	29·0	28·6
Fernhurst sub-dis.	22·4	35·8	28·7	32·6	32·3	32·8	30·7
Harting	24·7	32·0	30·6	31·3	32·0	29·6	30·0
Total		30·0	31·5	30·6	30·0	30·5	30·4

There is here a marked difference in the various localities and this is probably due to the distribution of the population at different ages.

The *infant mortality* is here given as measured by the number

of deaths under one year to the total number of births in the year:—

	Births.		Deaths under 1 year,		Ratio to 1000 births.
Midhurst Parish	41	...	6	...	146
Rest of Midhurst sub-dist.	144	...	10	...	69
Fernhurst sub-district ...	80	...	7	...	87
Harting sub-district	147	...	11	...	74
<hr/>					
Whole of District ...	412		34		82

Throughout England and Wales there were during the year 130 deaths of infants under one year of age to every 1,000 children born, against a rate of 158, 146, 136, 152, 135 and 153 in the six preceding years; the proportion of infant mortality averaged 149 per 1,000 during the ten years, 1871-80.

The following table shows the ratio of infant mortality in different localities during the past six years:—

	1876.	1877.	1878.	1879.	1880.	1881.	Mean of the six years
Midhurst Parish	66	116	97	50	87	146	93
Rest of Midhurst sub-dis.	65	41	93	99	99	69	77
Fernhurst „ ...	134	83	59	115	77	87	92
Harting „ ..	75	76	93	97	88	74	84
<hr/>							
Whole district	80	70	88	96	89	82	84

The thirty-four infantile deaths last year included one from erysipelas, one from diphtheria, three from convulsions, six from lung diseases, eight from debility or atrophy, one from teething, and fourteen from premature birth.

The deaths from *zymotic* or catching disorders were 19 in number; in the five previous years there were respectively 11, 24, 23, 12 and 9 deaths.

The nineteen deaths included three from scarlatina, four from diphtheria, one from whooping-cough, six from enteric fever, one from diarrhoea, one from rheumatic fever, two from erysipelas and one from puerperal fever.

The rate of mortality from these disorders was 1·3 per 1000 persons living, against a rate of 0·8, 1·7, 1·6, 0·8, and 0·6 in the six preceding years.

Throughout England and Wales the annual death-rate from the seven principal zymotic diseases alone was 2·24 per 1000, against 2·24 and 3·30 in the two preceding years.

Table II. shows the deaths and death-rate in each of the past six years from this class of disorders, while Table III. shows the prevalence of these diseases in each parish during the same period.

Small pox was imported into this district once during the year. Harriett C., aged 16 years, living in service at Guildford, was taken ill on Friday, July 15th, and on July 17th she was sent home to her friends at a cottage near Shotter Mill in the parish of Linchmere. At this time there were several cases of small-pox at Guildford and one person was ill in a house close to where Harriett C. lived. On July 18th, the rash of small-pox appeared and the girl finally recovered. When Harriett C. came to the cottage it was occupied by Daniel C., his wife and six young children. As soon as the nature of the disease was manifest, these eight persons were removed to an empty cottage about 100 yards distant. They had all been vaccinated in infancy and they were revaccinated on July 23rd. None of them took the disease.

Louisa C., aged 23 years, a sister of Harriett C., also living in service at Guildford, had a mild attack and made a good recovery. She probably caught the disease from her sister. Both the patients had been vaccinated in infancy and each had three good marks. The bedding and clothing used by the patients were burnt on Sept 5th, and the house was disinfected by burning sulphur. There was no further spread of the disease.

Enteric Fever—There were two deaths at Fernhurst in a small cottage occupied by Henry B., aged 47 years, and his wife Sarah B., aged 47 years. The man died from exhaustion on February 16th and his wife died from bed-sores after an illness of four months.

There were no other cases in the village and the cause of the fever could not be clearly made out.

There was one death at Harting of a person who caught the disease abroad and died on his return home. There was no other case in the neighbourhood.

The remaining three cases died in a small and dirty cottage at Heyshott. In this cottage there dwelt at the time of the outbreak the following persons:—

Henry M., 52 years, taken ill about February 12, recovered.

Mrs. M., 46 years, ill on April 5th, died May 4th.

James, 24 years, ill on March 28th, died May 23rd.

Isaac, 22 years, ill on March 1st, died March 16th.

Eva, 12 years, ill on February 15th, recovered.

Lily, 9 years, ill on February 6th, recovered.

William, 7 years, ill on March 3rd, recovered.

A daughter, Mary M., was in service at Eastbourne at a time when there were several cases of enteric fever in that town: she fell ill with that disease, and she was taken to the Union Infirmary in the first week of September, 1880; she was there eight weeks, and returned to her parents' home on November 5th

Rose M., another daughter, came home from service on March 19th to aid in the nursing; she escaped the disorder.

Lily M. was first taken ill, and then the other inmates were attacked one after another, but at considerable intervals of time.

There were no other cases in the neighbourhood at the time, and the fever was confined to this cottage. The healthy inmates could not be removed as no one would take them in, and there was overcrowding when the daughters came back from service. The origin of the outbreak seemed to be due to Mary M. returning home while yet she was in an infectious state. If this were the case, then the incubation period must have been much longer than what is usually stated. It must be remembered that from Christmas 1880 to January 26, 1881, there was a spell of very cold and dry weather; no rain fell during the first seventeen days of January, but the ground was dry and frozen. Then came the great snow-storm of January 18th, succeeded by a thaw on January 26th, when the frost broke up and the air and soil became damp.

It seems possible that the outbreak was due to the excreta in the case of Mary M. remaining infectious for some time after she came home, and that the frosty, dry weather aided in checking any noxious emanations. The excreta were not buried separately, but an ordinary closet was used by all the members of the family. The mild damp weather after January 26, would be favourable for the further development of any infectious germs, and a fortnight after the change in the weather the first case occurred. The disease being once established in the cottage, the other inmates caught the disorder either through the foul state of the air and clothing, or from the excreta.

In the year 1878 there was a similar outbreak at Coates in the Petworth Union; in this case the disease persisted from August until the end of December. See Report v. pp. 16, 17.

Last year there was a similar outbreak at Ferring, in the East Preston Union, and here the fever attacked different members of the family between November, 1881, and the following February. See p. 53.

In the outbreak at Castletown, in the Steyning Union, in the early part of 1881, the fever continued to attack people from December to the middle of the following March. See pp. 6-10.

Scarlet fever appeared in this district a few times in the year. It was most prevalent at Upperton, in the parish of Tillington, in the month of October. Most of the children in the village were attacked, and the disease was so mild in many cases that no medical attendance was obtained. In one family the fever appeared in a very severe form and two children died, one, aged six years, on October 5th, and the other, aged four years, on October 11th. In this case the house was well built,

large and roomy ; the water was good and there were no sanitary defects.

The parents had never had scarlet fever at any time of their lives, and they were also first cousins.

In my last report (Report VII. p. 12) there is mentioned a similar case in which the great mortality in one family seemed due to the parents never having had the fever in early life ; see also a case in this report on page 52 which occurred at Broadwater. In cases where the disease proves very fatal, it is important to find out whether the fatality be due to the malignity of the scarlet fever virus in different years, or whether it may not be due to the unprotected state of the person attacked.

Diphtheria appeared at Heyshott in the autumn. This village is built upon the gault, a stiff, impervious soil between the upper and the lower greensand. In wet weather the soil is soft and spongy and fogs are common here. Towards the end of September the nights begin to get cold and fogs rise towards evening from the plains. The people at Heyshott dwell chiefly around the village green and the school-house is situated at one angle of the common. Most of the children who were attacked attended the school, but the first case came from Midhurst where a girl in service, aged 13 years, came home on September 4th to her parents with a bad throat. There were no other cases at Midhurst of diphtheria. But at this time there were many cases of sore throat at Heyshott which is about three miles from Midhurst and upon quite a different formation.

Two children (male, 7 years, female, 5 years) died in the first week of October.

The school was closed on August 5th for the holidays and it was reopened on September 12th. It was again closed when the outbreak appeared and the place was twice disinfected with burning sulphur and then thoroughly washed and cleansed. The drains were relaid and the school was made in consequence rather drier.

In each house where diphtheria, or sore throat appears, the parents are advised to keep the children at home but in many cases the disease is spread through a school by children going there with infectious sore throats, the parents not being aware of the nature of the malady.

At Linchmere there were two cases of diphtheria in a lonely cottage situated in a damp hollow on a clay soil. One boy, aged 2 years, died on May 17th and his brother, aged 8 months, died on May 27th. The parents escaped and there were no other cases in the neighbourhood. There were no other children in the house.

There were as many as nine deaths returned as "not certified" out of a total of 101 in the Midhurst sub-district ; female, one

hour, premature birth ; male, 78 years, old age ; male, 72 years, heart disease, sudden death ; male, one month, convulsions ; male, 53 years, heart disease, dropsy ; male, 58 years, heart disease, sudden death ; female, 10 days, convulsions ; female, 71 years, apoplexy ; male, a few minutes, premature birth.

There was one death returned as "not certified" out of a total of 36 in the Fernhurst sub-district ; female, 30 minutes, premature birth.

There were three deaths returned as "not certified" out of a total of 68 in the Harting sub-district ; female, six weeks, congestion of the lungs ; male, 79 years, fit, found dead in his bedroom ; male, 9 days, inanition.

Inquests were held in three cases ; male, 3 years, accidentally burnt ; male, 53 years, natural causes ; female, 14 years, suicide by drowning whilst of unsound mind.

In each sub-district there was one death of an illegitimate child ; male, 4 months, tabes mesenterica, certified ; male, 3 days, premature birth, certified ; female, $1\frac{3}{4}$ year, meningitis, certified.

There have been no cases during the year in which it was found necessary to condemn meat or any other article of food which had been exposed for sale.

A few cases of over-crowding were dealt with during the year, and the nuisance was abated.

The slaughter-houses and bakehouses have been inspected at intervals, and they have been kept in a cleanly state.

There is at the present time no common lodging house in the district.

No proceedings were taken before the magistrates during the year.

The new cases of sickness among paupers were 463, against 450, 625, 613, 622, and 465 in the five preceding years.

The accompanying tables are of interest as they show the various changes in the mortality for a term of years.

Table I. shows the deaths at various groups of ages during the last six years.

Tables II. and III. show the mortality from zymotic diseases for each year and for each parish. Whooping-cough and diphtheria head the list, as regards frequency, followed by enteric fever, diarrhoea, measles, scarlatina, rheumatic fever, erysipelas, and small-pox.

Table IV. gives the deaths and death-rate from all causes and from various causes during the past six years.

The figures have been revised and the estimates of population have been carefully corrected.

The *general* death-rate was 18.1 per 1000 in the ten years

1851-60 ; it was 17·6 in the ten years 1861-70, and it was 15·3 per 1000 in the six years 1876-81.

The *zymotic* death-rate was 321 in 1851-60 ; it was 243 in 1861-70, while in 1876-81 it was 118 per 100,000 persons living.

The *phthisis* death-rate was 275 in 1851-60 ; it was 215 in 1861-70, while in 1876-81, it was 161 per 100,000 persons living.

The *lung disease* death-rate was 176 in 1851-60 ; it was 194 in 1861-70, while in 1876-81, it was 181 per 100,000 persons living.

The death-rate from *heart disease* during the last six years has been on the average 177 per 100,000 persons living.

MIDHURST RURAL SANITARY DISTRICT.

TABLE I.—Showing the Deaths at various groups of ages in the six years 1876-81.

YEAR.	At all Ages.	Under 1 year.	1 and under 5.	5 and under 15.	15 and under 25.	25 and under 60.	60 and upwards.
1876	221	36	14	10	5	60	96
1877	189	30	15	12	9	50	73
1878	222	37	20	21	8	49	87
1879	233	40	16	11	8	50	108
1880	198	38	17	7	11	37	88
1881	205	34	22	10	9	42	88
TOTAL ..	1268	215	104	71	50	288	540
Mean	211 3	35 9	17 3	11 8	8 3	48	90

TABLE II.—Showing the Deaths and Death-rate in each of the six years 1876-81 from Zymotic Diseases.

YEAR,	Small-pox.	Measles.	Scarlatina.	Diphtheria.	Whooping Cough.	Cont. Fevers.			Diarrhoea and Dysentery.	Rheumatic Fever.	Erysipelas	Pyæmia.	Puerperal Fever.	TOTAL.	Rate per 1000 persons living.
						Typhus.	Enteric or Typhoid	Other or Doubtful.							
1876	2	...	1	2	...	...	4	...	1	...	1	...	...	11	0 8
1877	...	2	2	3	9	1	1	1	1	3	1	...	...	24	1 7
1878	2	4	...	2	3	...	4	1	6	...	...	...	1	23	1 6
1879	...	1	..	6	1	...	1	...	1	2	...	...	...	12	0 8
1880	...	...	...	1	4	...	...	...	3	...	1	...	...	9	0 6
1881	...	...	3	4	1	...	6	...	1	1	2	..	1	19	1 3
Tl	4	7	6	18	18	1	16	2	13	6	5	—	2	98	1 1

MIDHURST RURAL SANITARY DISTRICT.

TABLE III.—Showing the Total Deaths from Zymotic Diseases in each Parish in the 6 years 1876-81.

PARISH	Small Pox	Measles	Scarlatina	Diphtheria	Whooping Cough	Cont. Fevers			Diarrhoea and Dysentery	Rheumatic Fever	Erysipelas	Pyæmia	Puerperal Fever	TOTAL
						Typhus	Enteric or Typhoid	Other or doubtful						
East Lavington	2	..	..	..	..	..	..	2
West Lavington	2	..	3	1	..	..	1	1	1	1	..	..	..	10
Tillington	1	..	..	1	..	..	..	..	..	1	..	..	3
Lodsworth	0
Selham	3	..	..	3	..	..	1	..	..	..	7
Heyshott	2	..	..	..	1	..	..	..	..	1	..	..	1	4
Graffham	1	..	3	..	..	1	..	..	..	4
Cocking	2	..	..	5	..	1	..	1	..	..	..	..	11
Midhurst	1	..	..	..	1	..	1	..	..	3
Woolbeding	1	..	1	..	..	3
Easebourne	1	..	1	..	..	3
South Ambersham	1	..	1	..	..	3
North Ambersham	7	1	..	..	..	1	..	..	..	1	11
Lurgashall	3	..	..	2	..	1	..	1	..	..	9
Fernhurst	3	..	..	..	..	1	..	..	..	..	7
Linchmere	1	..	..	..	..	4
Linch	1	..	..	..	1	..	..	..	..	2
Stedham	1	..	1	..	..	..	1	..	..	..	..	2
Iping	1	..	..	1	..	1	..	2	..	..	..	..	5
Trotton	1	..	..	1	1	..	..	..	..	..	..	..	1
Chithurst	1	..	..	..	..	..	..	..	5
Terwick	1	..	2	1	..	1	..	..	..	7
Rogate	1	1	1	2	..	1	..	2	1	..	..	..	8
Harting	2	2	1	1	2	..	..	..	..	1	..	..	..	4
Elsted
Treyford	1	..	..	..	..	1	..	..	..	1
Didling	1
Bepton
Total	4	7	6	18	18	1	16	2	13	6	5	..	2	98

East Lavington

West Lavington

Tillington

Lodsworth

Selham

Heyshott

Graffham

Cocking

Midhurst

Woolbeding

Easebourne

South Ambersham

North Ambersham

Lurgashall

Fernhurst

Linchmere

Linch

Stedham

Iping

Trotton

Chithurst

Terwick

Rogate

Harting

Elsted

Treyford

Didling

Bepton

Midhurst sub-district.

Fernhurst sub-district.

Harting sub-district.

MIDHURST RURAL SANITARY DISTRICT.

TABLE IV.—Showing the Deaths and Death-rate from all causes and from various causes in different localities in the six years 1876-81.

LOCALITY.	Population in middle of period.	Deaths during the 6 years 1876-81 from						Annual death-rate per 100,000 living from			
		All Diseases	Zymotic Disease	Phthisis	Lung Disease	Heart Disease	All Diseases	Zymotic Disease	Phthisis	Lung Disease	Heart Disease
Midhurst parish	1582	156	11	15	17	14	1643	116	158	179	148
Rest of Midhurst sub-district...	4876	461	35	58	47	51	1575	113	198	161	174
Fernhurst sub-district.....	2378	207	21	24	34	21	1450	147	168	238	147
Harting sub-district	4904	444	31	36	52	60	1508	105	122	176	204
Whole District.....	13740	1268	98	133	150	146	1538	118	161	181	177
In 1876	13501	221	11	22	19	31	1636	81	162	140	229
In 1877	13595	189	24	27	11	18	1390	176	198	80	132
In 1878	13691	222	23	23	28	24	1621	168	168	204	175
In 1879	13789	233	12	26	31	32	1689	87	188	224	232
In 1880	13884	198	9	21	28	21	1425	64	151	201	151
In 1881	13987	205	19	14	33	20	1465	135	100	236	143

(A) TABLE OF DEATHS during the year 1881, in the Rural Sanitary District of MIDHURST classified according to Diseases, Ages, and Localities, and showing also the Population of such Localities, and the Births therein during the year.

[illegible]

(B) TABLE OF NEW CASES OF SICKNESS coming to the knowledge of the Medical Officer of Health, during the year 1881 in the Rural Sanitary District of MIDHURST, classified according to Localities and Diseases.

NAMES OF LOCALITIES.	NEW CASES OF SICKNESS IN PERSONS BELONGING TO THE DISTRICT, DISTINGUISHING THOSE IN CHILDREN UNDER FIVE YEARS OF AGE,																	Other Diseases, such as Chicken Pox or Pneumonia, which the Medical Officer of Health thinks well to record.
		Smallpox	Measles	Scarlatina	Diphtheria	Croup (not "spasmodic")	Whooping Cough	Cont. Fevers.			Diarrhoea and Dysentery	Cholera	Rheumatic Fever	Erysipelas	Pyæmia	Puerperal Fever	Ague	
	11	12	13	14	15	16	17	Typhus	Enteric or Typhoid	Other or Doubtful	21	22	23	24	25	26	27	
MIDHURST PARISH.	Under 5 ..																	
	5 upwards																	
REST OF MIDHURST SUB-DISTRICT.	Under 5 ...						1											
	5 upwards			2	1				1		3							
FERNHURST SUB-DISTRICT.	Under 5 ..				2													
	5 upwards	2		4	3				3									
HARTING SUB-DISTRICT.	Under 5 ..										1							
	5 upwards										3							
	Under 5 ...																	
	5 upwards																	
	Under 5 ...																	
	5 upwards																	
	Under 5 ...																	
	5 upwards																	
	Under 5 ..																	
	5 upwards																	
	Under 5 ...																	
	5 upwards																	
Totals	Under 5 ...				2		1				1							
	5 upwards	2		6	4				4		6							

Sources of information :—In Workhouse and Workhouse Infirmary, 33. Among Out-door Paupers, 430.

RURAL SANITARY DISTRICT OF WESTBOURNE.

POPULATION, 7221 in 1871; 7413 in 1881. AREA IN
ACRES 32,886. NO. OF HOUSES (1871) 1495; 1881, 1534.

During the year 1881 the births of 212 children and the deaths of 91 persons were registered; of the births 110 were male and 102 were female; of the deaths 47 were male and 44 were female.

There were eight deaths in the Westbourne Workhouse, and these were distributed among the several parishes whence each inmate came, viz., West Dean 1, Up Marden 1, Stoughton 2, Racton 1, Bosham 1, Westbourne 2; in all 8.

In each parish the deaths were thus distributed:—West Dean 10. East Marden 1, North Marden 1, Up Marden 4, Stoughton 9, Compton 0, Racton 1, Funtington 9, Bosham 21, Chidham 5, West Thorney 0, Westbourne 30; in all 91.

Estimating the population in the middle of the year at 7418 the birth-rate during the past year was equal to 28·5 and the death-rate was equal to 12·2 per 1000 persons living. Throughout England and Wales, the birth-rate during the past year was equal to 33·9 and the death-rate was equal to 18·9 per 1000; in small towns and country parishes the rate of mortality was 16·8 per 1000, while in the chief towns the rate was equal to 20·3 per 1000 persons living.

The births and deaths in the whole of the district during the past two years have been as follows:—

Year	Births	Birth-rate	Deaths	Death-rate
1880	231 ..	31·3 ...	120 ...	16·2
1881	212 ...	28·5 ...	91 ...	12·2

In each quarter the births and deaths were as follows:—

		Births.			Deaths.		
		M.	F.	Total.	M.	F.	Total.
1st Quarter	..	30	22	52	16	16	32
2nd „	...	32	26	58	17	12	29
3rd „	...	23	32	55	9	8	17
4th „	...	25	22	47	5	8	13
		—	—	—	—	—	—
Total	...	110	102	212	47	44	91

The deaths at different groups of ages in each quarter are here shown :—

	Under 1 year.	1—5.	5—15.	15—25.	25—60.	60 and Upwds.	Tl.
1st Quarter ...	4	2	1	1	8	16	32
2nd „ ...	2	2	—	1	6	18	29
3rd „ ...	3	1	2	—	4	7	17
4th „ ...	4	—	—	—	1	8	13
	—	—	—	—	—	—	—
Total ...	13	5	3	2	19	49	91

The *infant mortality* is here given as measured by the number of deaths under one year to the total number of births in the year :—

	Births.	Deaths under 1 year.	Ratio to 1000 births.
Funtington Parish.....	27	3	111
Bosham „	38	3	79
Westbourne „	72	4	55
Rest of District	75	3	40
	—	—	—
Whole of District ...	212	13	61

Throughout England and Wales there were during the year 130 deaths of infants under one year of age to every 1,000 children born, against a rate of 158, 146, 136, 152, 135 and 153 in the six preceding years; the proportion of infant mortality averaged 149 per 1,000 during the ten years, 1871-80.

The 13 infantile deaths included 1 from erysipelas, 2 from convulsions, 2 from lung diseases, 3 from debility, 4 from marasmus, while in one case the cause of death was unknown.

The deaths from *zymotic* or catching disorders were 4 in number, against 5 deaths in the previous year.

These deaths included 2 from erysipelas, 1 from diphtheria, and 1 from puerperal fever.

The rate of mortality from this class of disorders was 0·6 per 1000 persons living.

Throughout England and Wales the annual death-rate from the seven principal zymotic diseases alone was 2·24 per 1000, against 2·44 and 3·30 in the two preceding years.

There were as many as seven deaths returned as “not certified” out of a total of 91 deaths :—male, 3 months, unknown; male, 1 year, probably convulsions; female, 75 years, unknown; male, 18 years, probably a fit; male, 45 years, probably disease of the heart; male, 2 years, probably convulsions; female, 45 years, probably heart disease.

Inquests were held in five cases :—male, 49 years, disease of the heart, accelerated by cold and exertion; male, 55 years,

hæmorrhage of lungs; female, 1 year, accidental burning; male, 72 years, accidental fall from a wagon; female, 57 years, accidental fall down stairs.

There were two deaths among illegitimate children :—Male, 1 year, probably convulsions, not certified; female, 5 months, marasmus, certified.

A few cases of over-crowding were dealt with during the year.

No cases occurred in which it was found necessary to condemn meat or any other article of food.

The slaughter-houses and bakehouses have been inspected at intervals, and they have been kept in a cleanly state.

No proceedings were taken before the magistrates during the year.

There were 295 new cases of pauper sickness during the year.

This district was in a very healthy state, as shown not only by the zymotic, but by the general, death-rate.

(A) TABLE OF DEATHS during the year 1881, in the Rural Sanitary District of WESTBOURNE classified according to Diseases, Ages, and Localities, and showing also the Population of such Localities, and the Births therein during the year.

[illegible]

(B) TABLE OF NEW CASES OF SICKNESS coming to the knowledge of the Medical Officer of Health, during the year 1881 in the Rural Sanitary District of WESTBOURNE, classified according to Localities and Diseases.

NAMES OF LOCALITIES.	NEW CASES OF SICKNESS IN PERSONS BELONGING TO THE DISTRICT, DISTINGUISHING THOSE IN CHILDREN UNDER FIVE YEARS OF AGE,																		Other Diseases, such as Chicken Pox or Pneumonia, which the Medical Officer of Health thinks well to record.
	11	Smallpox 12	Measles 13	Scarlatina 14	Diphtheria 15	Croup (not "spasmodic") 16	Whooping Cough 17	Cont. Fevers.			Diarrhoea and Dysentery 21	Cholera 22	Rheumatic Fever 23	Erysipelas 24	Pyæmia 25	Puerperal Fever 26	Ague 27		
								Typhus 18	Enteric or Typhoid 19	Other or Doubtful 20									
FUNTINGTON PARISH.	Under 5 ...																		
	5 upwards																1		
BOSHAM PARISH.	Under 5 ...									2									
	5 upwards									1									
WESTBOURNE PARISH.	Under 5 ...																		
	5 upwards									3			5						
REST OF DISTRICT.	Under 5 ...						1						1						
	5 upwards									2			1						
	Under 5 ...																		
	5 upwards																		
	Under 5 ...																		
	5 upwards																		
	Under 5 ...																		
	5 upwards																		
	Under 5 ...																		
	5 upwards																		
	Under 5 ...																		
	5 upwards																		
Totals	Under 5 ...						1			2			1						
	5 upwards									6			6				1		

Sources of information :—In Workhouse and Workhouse Infirmary, 22. Among Out-door Paupers, 273.

URBAN SANITARY DISTRICT OF WORTHING.

POPULATION in 1871, 7,413; in 1881, 10,976. ' AREA IN
ACRES, 784. NO. OF HOUSES (1871) 1,331; 1881, 1,984.

During the year 1881 the births of 324 children and the deaths of 170 persons were registered; of the births 172 were male and 152 were female; of the deaths 78 were male and 92 were female.

There were eight deaths in the East Preston Workhouse belonging to this district and they are included in the 170.

There were twenty deaths among visitors during the past year; of these, ten were male and ten were female.

During the past seven years 108 visitors have died in this district; of this number, 13 died from zymotic disease, 13 from consumption, 12 from lung disease, 8 from heart disease and 57 from other causes.

Estimating the population in the middle of the year at 11,100 the birth-rate was 29·2 per 1000 and the death-rate was 15·3 per 1000 persons living; excluding visitors, the death-rate was 13·5 per 1000.

Throughout England and Wales, the birth-rate during the past year was equal to 33·9 and the death-rate was equal to 18·9 per 1000; in small towns and country parishes the rate of mortality was 16·8 per 1000, while in the chief towns the rate was equal to 20·3 per 1000 persons living.

The births and deaths for the past seven years are here shown:—

Year.	Births.	Birth-rate.	Deaths.		Death-rate.	
			including visitors.	excluding visitors.	including visitors.	excluding visitors.
1875.....	240	27·2	164	143	18·6	16·2
1876.....	258	28·5	178	163	19·6	18·0
1877.....	250	26·7	160	146	17·1	15·6
1878.....	265	27·1	168	150	17·2	15·3
1879.....	287	28·1	153	146	15·0	14·3
1880.....	286	26·8	168	155	15·7	14·5
1881.....	324	29·2	170	150	15·3	13·5
Mean ...	273	27·6	166	150·4	16·9	15·3

In each quarter the births and deaths were as follows :—

		Births.			Deaths.		
		M.	F.	Total.	M.	F.	Total.
1st Quarter	..	44	35	79	23	23	46
2nd	„	46	40	86	27	26	53
3rd	„	41	30	71	15	25	40
4th	„	41	47	88	13	18	31
Total		172	152	324	78	92	170

The births and deaths in each quarter of the past three years are here contrasted :—

Births.					Deaths.			
	1879	1880	1881	Tl.	1879	1880	1881	Tl.
1st Quarter...	63	62	79	204	40	39	46	125
2nd ,, ..	85	74	86	245	37	43	53	133
3rd ,, ...	75	66	71	212	33	46	40	119
4th ,, ...	64	84	88	236	43	40	31	114
	—	—	—	—	—	—	—	—
Total ...	287	286	324	897	153	168	170	491

The deaths at different groups of ages in each quarter are here shown :—

		Under 1 year.	1—5.	5—15.	15—25.	25—60.	60 and Upwds.	Tl.
1st Quarter	...	7	4	3	2	13	17	46
2nd	„	6	3	2	3	18	21	53
3rd	„	10	5	2	1	10	12	40
4th	„	5	3	1	1	8	13	31
Total		28	15	8	7	49	63	170

The *infant mortality* is here given as measured by the number of deaths under one year to every 1000 children born :—

Year.	Births.	Deaths under 1 year.		Ratio to 1000 births.	
1875.....	240	...	33	...	138.
1876.....	258	...	30	...	116
1877.....	250	...	33	...	126
1878.....	265	...	31	...	117
1879...	287	...	21	...	73
1880.....	286	...	39	...	136
1881..	324	...	28	...	86
Mean.....	273	...	30·7	...	113·1

Throughout England and Wales there were during the year 130 deaths of infants under one year of age to every 1,000 children born, against a rate of 158, 146, 136, 152, 135 and

153 in the six preceding years; the proportion of infant mortality averaged 149 per 1,000 during the ten years, 1871-80.

The deaths from *zymotic* or catching disorders were 10 in number, against 16, 29, 19, 21, 9 and 29 in the six preceding years.

These ten deaths included four from scarlatina, two from diarrhœa, one from enteric fever, one from diphtheria and two from rheumatic fever.

The rate of mortality from these disorders was 0·9 per 1000 persons living, against a rate of 1·8, 3·2, 2·0, 2·1, 0·8 and 2·7 in the six preceding years.

Table II. shows the deaths from this class of disorders during the past seven years.

The prevalence of these various disorders in each quarter of the past year is here shown :—

	1st Quarter.	2nd Quarter.	3rd Quarter.	4th Quarter.	Year.
Scarlatina	3	1	—	—	4
Enteric Fever	—	1	—	—	1
Diarrhœa	—	—	2	—	2
Diphtheria... ..	—	—	1	—	1
Rheumatic Fever ...	1	—	1	—	2
	—	—	—	—	—
Total	4	2	4	—	10

There was only one death returned as “not certified” out of a total of 170 :—Male, 64 years, supposed heart disease.

Inquests were held in six cases :—Male, 48 years, suicide by cutting throat; male, 27 years, accidental fall from roof of waterworks; female, 14 weeks, natural causes; male, 60 years, found drowned; male, 24 years, accidentally run over; female, 62 years, suffocation.

There were three deaths of illegitimate children :—Female, 14 weeks, inquest held, natural causes; male, 3 weeks, convulsions, premature birth, certified; male, 8 months, pneumonia, certified.

In the Worthing Infirmary there were 35 in-patients during the year against 27, 34, 30, 42, 42 and 49 in the six previous years.

Among the 35 in-patients belonging to this district 18 were admitted for injuries; the remaining 20 in-patients belonged to the rural sanitary district of East Preston.

There were also 1075 out-patients against 1021, 1073, 1002, 1074, 1065 and 1080 in the six previous years.

Among the 1075 out-patients, 752 belonged to this district and 323 belonged to the rural sanitary district of East Preston.

There were a few cases of overcrowding during the year and these were remedied.

There is one registered common lodging house in the district and this is well kept.

No cases arose during the year in which it was necessary to condemn meat or any other article of food.

The slaughter-houses and bakehouses have been inspected at intervals, and they have been kept in a cleanly state.

No proceedings were taken before the magistrates during the year.

There were 214 new cases of sickness among paupers against 243, 347, 194, 199, 141 and 251 in the six preceding years.

RAINFALL.—The rainfall during each month of the past year is here shown :—

Month.	Rainfall in inches.		No. of rainy days.	
January	1	13	9	
February	3	68	14	
March	2	76	12	
April	0	78	8	
May	1	16	9	
June	2	94	11	
July	1	68	11	
August	4	36	19	
September	2	65	13	
October	2	16	15	
November	3	70	22	
December	2	97	18	
<hr/>			<hr/>	
29.97			161	

The rain gauge is 1ft. above the ground and 24.6ft. about the sea level ; diameter of funnel, 5 inches.

The following table shows the changes that have taken place in the death-rate during the past 29 years :—

Per 100,000 persons living.	1843—52.	1853—56.	1857—63.	1875—81.	
	BEFORE execution of sanitary works,	DURING	AFTER	including visitors	excluding visitors
<i>All ages, both sexes—</i>					
General Death-rate	1550	1630	1530	1695	1536
Zymotic Death-rate	292	280	328	195	175
Phthisis Death-rate	305	282	195	176	149
Lung Disease Death rate.....	147	185	185	205	187

WORTHING URBAN SANITARY DISTRICT.

TABLE I.—Showing the Deaths at various groups of ages in the seven years 1875-81.

YEAR.	At all ages.	Under 1 year.	1 and under 5.	5 and under 15.	15 and under 25.	25 and under 60.	60 and upwards.
1875	164	33	17	3	10	41	60
1876	178	30	25	15	5	47	56
1877	160	33	15	8	6	42	56
1878	168	31	13	2	8	49	65
1879	153	21	13	2	8	39	70
1880	168	39	18	12	9	41	49
1881	170	28	15	8	7	49	63
TOTAL ..	1161	215	116	50	53	308	419
Mean ...	165·8	30·7	16·6	7·1	7·5	44·0	59·9

TABLE II.—Showing the Deaths and Death-rate in each of the seven years 1875-81 from Zymotic Diseases.

YEAR,	Small-pox.	Measles.	Scarlatina.	Diphtheria.	Whooping Cough.	Cont. Fevers.			Diarrhoea and Dysentery.	Rheumatic Fever.	Erysipelas	Pyæmia.	Puerperal Fever.	TOTAL.	Rate per 1000 persons living.
						Typhus.	Enteric or Typhoid	Other or Doubtful.							
1875	...	1	...	...	...	1	...	3	10	...	1	...	...	16	1·8
1876	...	4	16	2	1	...	...	...	5	...	...	...	1	29	3·2
1877	2	2	1	...	...	1	9	2	...	...	2	19	2·0
1878	15	...	...	...	5	...	...	1	...	21	2·1
1879	...	5	..	1	2	...	...	...	...	...	1	...	...	9	0·8
1880	...	4	1	2	6	...	7	...	9	...	...	...	...	29	2·7
1881	4	1	...	...	1	...	2	2	...	...	...	10	0·9
Tl		14	23	8	25	1	8	4	40	4	2	1	3	133	1·9

WORTHING URBAN SANITARY DISTRICT.

TABLE III.—Showing the Deaths and Death-rate from all causes and from various causes during the seven years, 1875-81.

Year.	Population in middle of period.	Annual rate per 100,000							
		All Diseases	Zymotic Disease	Phthisis	Lung Disease	Heart Disease	All Diseases	Zymotic Disease	Phthisis
Including Visitors	In 1875...	164	16	19	26	14	1863	181	215
	In 1876...	178	29	21	15	9	1966	320	232
	In 1877...	160	19	15	10	24	1711	203	160
	In 1878...	168	21	19	26	13	1723	215	194
	In 1879...	153	9	18	21	18	1500	88	176
	In 1880...	168	29	17	21	13	1573	271	159
Excluding Visitors.	In 1881...	170	10	11	23	20	1531	90	99
	Total ...	1161	133	120	142	111	1695	195	176
	In 1875...	143	11	16	23	12	1625	125	181
	In 1876...	163	27	16	12	9	1801	298	176
	In 1877...	146	17	13	10	20	1561	181	139
	In 1878...	150	20	15	23	13	1538	205	153
Total ...	In 1879...	146	8	18	20	18	1431	78	176
	In 1880...	155	27	15	20	11	1451	252	140
	In 1881...	150	10	9	22	20	1351	90	81
	Total ...	1053	120	102	130	103	1536	175	149
	In 1875...	136	125	181	261	136	205	160	148
	In 1876...	98	298	176	132	98	187	136	148

(A) TABLE OF DEATHS during the year 1881, in the Urban Sanitary District of WORTHING, classified according to Diseases, Ages, and Localities, and showing also the Population of such Localities, and the Births therein during the year.

Names of Localities adopted for the purpose of these Statistics ; public institutions being shown as separate localities.	POPULATION AT ALL AGES.	Registered Births.	MORTALITY FROM ALL CAUSES AT SUBJOINED AGES.							MORTALITY FROM SUBJOINED CAUSES, DISTINGUISHING DEATHS OF CHILDREN UNDER FIVE YEARS OF AGE.																					
	Census 1881.		At all ages	Under 1 year	5 and under 15	15 and under 25	25 and under 60	60 and upwards		Small Pox	Measles	Scarlatina	Diphtheria	Croup (not "spasmodic")	Whooping Cough	Cont. Fevers,			Diarrhoea and Dysentery	Cholera	Rheumatic Fever	Erysipelas	Pyæmia	Puerperal Fever	Ague	Phthisis	Bronchitis Pneumonia and Pleurisy	Heart Disease	Injuries	Other Diseases	
																Typhus	Enteric or Typhoid	Other or doubtful													
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
WORTHING URBAN SANITARY DISTRICT	10,976	324	162	28	15	8	7	48	56	Under 5			1	1						2								11			28
										5 upwds			3					1				2					11	11	19	6	66
										Under 5																					
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TOTALS	10,976	324	162	28	15	8	7	48	56	Under 5			1	1						2								11			28
										5 upwds			3					1				2					11	11	19	6	66
Deaths occurring outside the district among persons belonging thereto			8	—	—	—	—	1	7	Under 5																		1	1		6
										5 upwds																					
Deaths occurring within the district among persons not belonging thereto			20	2	3	—	1	8	6	Under 5																					5
										5 upwds																	2	1		2	10

(B) TABLE OF NEW CASES OF SICKNESS coming to the knowledge of the Medical Officer of Health, during the year 1881 in the Urban Sanitary District of WORTHING, classified according to Localities and Diseases.

NAMES OF LOCALITIES.	NEW CASES OF SICKNESS IN PERSONS BELONGING TO THE DISTRICT, DISTINGUISHING THOSE IN CHILDREN UNDER FIVE YEARS OF AGE,																	Other Diseases, such as Chicken Pox or Pneumonia, which the Medical Officer of Health thinks well to record.
	11	Smallpox 12	Measles 13	Scarlatina 14	Diphtheria 15	Croup (not "spasmodic") 16	Whooping Cough 17	Cont. Fevers.			Diarrhoea and Dysentery 21	Cholera 22	Rheumatic Fever 23	Erysipelas 24	Pyæmia 25	Puerperal Fever 26	Ague 27	
								Typhus 18	Enteric or Typhoid 19	Other or Doubtful 20								
WORTHING URBAN SANITARY DISTRICT.	Under 5 ...			1							3							
	5 upwards	1									1			3				
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Sources of information :—In Workhouse and Workhouse Infirmary, 15. Among Out-door Paupers, 199. As In-patients of Worthing Infirmary, 35. As Out-patients of Worthing Infirmary, 752.

URBAN SANITARY DISTRICT OF LITTLEHAMPTON.

POPULATION in 1871, 3,272 ; in 1881, 3894. AREA IN ACRES,
1222. NO. OF HOUSES in 1871, 625 ; in 1881, 747.

During the year 1881 the births of 105 children and the deaths of 58 persons were registered ; of the births 54 were male and 51 were female ; of the deaths 34 were male and 24 were female. These 58 deaths include the deaths of three inmates in the East Preston Workhouse which is outside the district ; they also include the deaths of three visitors :—Male, 5 days, convulsions ; female, 4 days, premature birth ; male, 18 years, suicide by shooting whilst of unsound mind.

Estimating the population in the middle of the year at 3,910 the birth-rate was 26·8 per 1000 and the death-rate was 14·8 per 1000 persons living ; excluding visitors, the death-rate was 14·0 per 1000 persons living.

The births and deaths for the past seven years are here shown :—

Year.	Births.	Birth-rate.	Deaths.		Death-rate.	
			including visitors.	excluding visitors.	including visitors.	excluding visitors.
1875.....	112	32·0	54	50	15·4	14·2
1876.....	104	29·2	52	49	14·6	13·8
1877.....	113	31·1	48	46	13·2	12·7
1878.....	114	30·9	60	58	16·2	15·7
1879.....	117	31·2	50	50	13·3	13·3
1880.....	109	28·6	51	45	13·3	11·8
1881.....	105	26·8	58	55	14·8	14·0
Mean...	110·5	30·0	53·2	50·4	14·4	13·6

In each quarter the births and deaths were as follows :—

		Births.			Deaths.		
		M.	F.	Total.	M.	F.	Total.
1st Quarter	...	12	16	28	8	8	16
2nd	„	17	6	23	10	5	15
3rd	„	11	18	29	7	5	12
4th	„	14	11	25	9	6	15
Total	...	54	51	105	34	24	58

The births and deaths in each quarter of the past three years are here contrasted :—

	Births.				Deaths.			
	1879	1880	1881	Tl.	1879	1880	1881	Tl.
1st Quarter...	31	27	28	86	14	18	16	48
2nd „ ..	34	32	23	89	13	13	15	41
3rd „ ...	28	27	29	84	10	8	12	30
4th „ ...	24	23	25	72	13	12	15	40
	—	—	—	—	—	—	—	—
Total ...	117	109	105	331	50	51	58	159

The deaths at different groups of ages in each quarter are here shown :—

		Under 1 year.	1--5.	5--15.	15--25.	25--60.	60 and Upwds.	Tl.
1st Quarter	...	2	1	—	—	3	10	16
2nd	„	4	1	—	1	2	7	15
3rd	„	2	1	—	2	5	2	12
4th	„	3	1	—	—	6	5	15
		—	—	—	—	—	—	—
Total	...	11	4	—	3	16	24	58

The *infant mortality* as measured by the number of deaths under one year to every 1000 children born was 104 against a rate of 36, 96, 79, 131, 51 and 110 in the six preceding years. The mean rate for the seven years is, therefore, 86 to every 1000 births.

Throughout England and Wales the rate last year was 130 per 1000, and 149 per 1000 births in the ten years 1871-80.

The eleven deaths in this district included one from measles, two from convulsions, one from bronchitis, four from debility, one from teething and two from premature birth.

There was only one death from any form of *zymotic* disease :—Male, 10 months, measles, congestion of the lungs.

In the six previous years there were respectively 6, 8, 3, 5, 2 and 3 deaths.

The rate of mortality from these disorders was 0·2 per 1000 persons living, against a rate of 1·7, 2·2, 0·8, 1·3, 0·5 and 0·7 in the six preceding years.

Throughout England and Wales the annual death-rate from the seven principal *zymotic* diseases alone was 2·24 per 1000, against 2·44 and 3·30 in the two preceding years.

There were no cases of over-crowding to be abated in the course of the year.

There were no cases during the year in which it was necessary to condemn meat or any other article of food which had been exposed for sale.

The slaughter-houses and bakehouses were kept in a cleanly state.

There is no common lodging house in the district.

No proceedings were taken before the magistrates during the year.

The returns of sickness among paupers show that there were 59 new cases, against 71, 56, 53, 80, 75 and 76 in the six preceding years.

All the deaths in this district appear to have been certified.

Inquests were held in two cases:—Male, 18 years, suicide by shooting whilst of unsound mind; male, 67 years, suicide by hanging whilst of unsound mind.

There were no deaths among illegitimate children during the year.

WATER SUPPLY.—The works for supplying the town with water were actively carried on during the year and are very nearly completed.

In the course of the spring of 1882 the town will have a plentiful supply of good and wholesome water.

A description of the works will be found in Report VI., pp., 72-75.

DRAINAGE AND SEWAGE.—Great progress was made in draining the town and in a few weeks the main system of sewerage will be completed.

The statistical tables show the health of the town to have been very good during a period of seven years under the old system; it will be easy in the future to see what benefits will ensue from a better water-supply and a different system of sewage disposal.

Table I. shows the deaths at various groups of ages during the past seven years.

Table II. shows the deaths and death-rate in each of the past seven years from zymotic diseases.

Table III. shows the deaths and death-rate from all causes and from various causes during a period of seven years, while

There are no facts available by which the death-rate of Littlehampton can be arrived at before 1874.

Dividing the period since 1874 into two portions, one of the four years 1875-78 and one of three years 1879-81, it would seem that there is an improvement.

			1875-78 per 100,000.		1879-81 per 100,000.
General death-rate	...	...	1488	...	1384
Zymotic	„	...	153	...	52
Phthisis	„	...	201	...	78
Lung disease	„	...	158	...	147
Heart	„ „	...	90	...	146

These death-rates include the deaths of visitors.

LITTLEHAMPTON URBAN SANITARY DISTRICT.

TABLE I.—Showing the Deaths at various groups of ages in the seven years 1875-81.

YEAR.	At all ages.	Under 1 year.	1 and under 5.	5 and under 15.	15 and under 25.	25 and under 60.	60 and upwards.
1875	54	4	9	1	1	24	15
1876	52	10	7	4	6	13	12
1877	48	9	2	1	2	16	18
1878	60	15	5	7	1	14	18
1879	50	6	3	4	3	12	22
1880	51	12	7	3	2	13	14
1881	58	11	4	—	3	16	24
TOTAL ..	373	67	37	20	18	108	123
Mean ...	53.2	9.6	5.3	2.8	2.6	15.4	17.5

TABLE II.—Showing the Deaths and Death-rate in each of the seven years 1875-81 from Zymotic Diseases.

YEAR,	Small-pox.	Measles.	Scarlatina.	Diphtheria.	Whooping Cough.	Cont. Fevers.			Diarrhoea and Dysentery.	Rheumatic Fever.	Erysipelas	Pyæmia.	Puerperal Fever.	TOTAL.	Rate per 1000 persons living.
						Typhus.	Enteric or Typhoid	Other or Doubtful.							
1875	1	3	...	...	...	1	1	...	...	...	...	6	1.7
1876	3	...	1	...	...	...	3	...	1	...	...	8	2.2
1877	1	1	...	...	...	...	...	1	...	...	...	3	0.8
1878	3	...	...	...	...	...	1	...	...	...	1	5	1.3
1879	2	...	...	...	...	...	...	...	...	...	2	0.5
1880	...	2	...	...	...	...	...	...	1	...	...	...	...	3	0.7
1881	...	1	...	...	...	...	...	...	...	...	...	...	...	1	0.2
Tl	...	3	8	6	1	...	...	1	6	1	1	...	1	28	1.0

LITTLEHAMPTON URBAN SANITARY DISTRICT.

TABLE III.— Showing the Deaths and Death-rate from all causes and from various causes during the seven years, 1875-81.

Year.	Population in middle of period.	Annual rate per 100,000									
		All Diseases	Zymotic Disease	Phthisis	Lung Disease	Heart Disease	All Diseases	Zymotic Disease	Phthisis	Lung Disease	Heart Disease
Including Visitors.	In 1875...	54	6	7	11	4	1542	171	200	314	114
	In 1876...	52	8	6	8	2	1460	224	168	224	56
	In 1877...	48	3	8	10	4	1324	82	220	275	110
	In 1878...	60	5	8	5	3	1626	135	219	135	81
	In 1879...	50	2	6	5	5	1333	53	159	130	130
	In 1880...	51	3	8	6	4	1335	78	209	156	105
	In 1881...	58	1	7	6	8	1483	25	178	152	204
Total ...	.....	373	28	50	51	30	1443	109	193	198	114
Excluding Visitors.	In 1875...	50	6	4	11	4	1428	171	114	314	114
	In 1876...	49	7	5	7	2	1376	196	140	196	56
	In 1877...	46	3	8	10	3	1268	82	220	275	82
	In 1878...	58	5	8	5	3	1572	135	219	135	81
	In 1879...	50	2	6	5	5	1333	53	159	130	130
	In 1880...	45	3	5	6	4	1180	78	130	156	105
	In 1881...	55	1	7	6	8	1406	25	178	152	204
Total .....	.....	353	27	43	50	29	1366	105	165	194	110

(A) TABLE OF DEATHS during the year 1881, in the Urban Sanitary District of LITTLEHAMPTON, classified according to Diseases, Ages, and Localities, and showing also the Population of such Localities, and the Births therein during the year.

[illegible]

(B) TABLE OF NEW CASES OF SICKNESS coming to the knowledge of the Medical Officer of Health, during the year 1881 in the Urban Sanitary District of LITTLEHAMPTON, classified according to Localities and Diseases.

NAMES OF LOCALITIES.	NEW CASES OF SICKNESS IN PERSONS BELONGING TO THE DISTRICT, DISTINGUISHING THOSE IN CHILDREN UNDER FIVE YEARS OF AGE,																	Other Diseases, such as Chicken Pox or Pneumonia, which the Medical Officer of Health thinks well to record.	
		Smallpox	Measles	Scarlatina	Diphtheria	Croup (not "spasmodic")	Whooping Cough	Cont. Fevers.				Diarrhoea and Dysentery	Cholera	Rheumatic Fever	Erysipelas	Pyæmia	Puerperal Fever			Ague
	11	12	13	14	15	16	17	Typhus	Enteric or Typhoid	Other or Doubtful	21	22	23	24	25	26	27		
LITTLEHAMPTON URBAN SANITARY DISTRICT.	Under 5 ...																		
	5 upwards								1					1					
	Under 5 ...																		
	5 upwards																		
	Under 5 ...																		
	5 upwards																		
	Under 5 ...																		
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	Under 5 ...																		
	5 upwards																		
	Under 5 ...																		
	5 upwards																		
Totals	Under 5 ...																		
	5 upwards								1					1					

Sources of information :—In Workhouse and Workhouse Infirmary, 8. Among Out-door Paupers, 51.

URBAN SANITARY DISTRICT OF WEST WORTHING.

POPULATION IN 1871, 276 ; IN 1881, 688. AREA IN ACRES,
300. No. OF HOUSES IN 1871, 40 ; IN 1881, 95.

During the year 1881 the births of 12 children and the deaths of 5 persons were registered ; of the births 9 were male and 3 were female ; of the deaths 4 were male and 1 was female.

Estimating the population in the middle of the year at 700, the birth-rate was equal to 17·1 per 1000, and the death-rate was equal to 7·0 per 1000 persons living.

The five deaths included one from brain disease, one from heart disease, one from cancer, one from old age, while one infant was prematurely born.

There were no deaths from any of the zymotic disorders.

There was one death from diarrhoea in 1876 and one death from whooping cough in 1880, or two zymotic deaths in a period of seven years. The rate of mortality from this class of disorders is on the average nearly 0·3 per 1000 persons living.

The total number of deaths in the past seven years at different groups of ages is here shown :—

Under 1 year.	1—5	5—15	15—25	25—60	60 and upwards	Total.
7	2	—	2	9	11	31

Since there were 61 births in the same period the infant mortality was 114 to every 1000 births, but the numbers are too small for due comparison.

These seven infantile deaths occurred in a space of seven years and included four deaths from premature birth, one from whooping-cough and two from debility.

The births and deaths during the past seven years have been as follows :—

Year.	Births.	Birth-rate.	Deaths.	Death-rate.
1875.....	9	22·5	6	15·0
1876.....	2	4·4	4	8·8
1877.....	6	12·0	3	6·0
1878.....	8	14·5	1	1·8
1879... ..	11	18·3	7	11·6
1880.....	13	20·0	5	7·7
1881.. ..	12	17·1	5	7·1
Mean.....	8·7	15·8	4·4	8·0

Nothing occurred in this district during the year requiring any special notice.

No cases arose during the year in which it was necessary to condemn meat or any other article of food which had been exposed for sale.

No cases of overcrowding had to be abated.

No proceedings were taken before the magistrates during the year.

(A) TABLE OF DEATHS during the year 1881, in the Urban Sanitary District of WEST WORTHING, classified according to Diseases, Ages, and Localities, and showing also the Population of such Localities, and the Births therein during the year.

(B) TABLE OF NEW CASES OF SICKNESS coming to the knowledge of the Medical Officer of Health, during the year 1881 in the Urban Sanitary District of WEST WORTHING, classified according to Localities and Diseases.

NAMES OF LOCALITIES.	NEW CASES OF SICKNESS IN PERSONS BELONGING TO THE DISTRICT, DISTINGUISHING THOSE IN CHILDREN UNDER FIVE YEARS OF AGE,																		Other Diseases, such as Chicken Pox or Pneumonia, which the Medical Officer of Health thinks well to record.
	11	Smallpox 12	Measles 13	Scarlatina 14	Diphtheria 15	Croup (not "spasmodic" 16	Whooping Cough 17	Cont. Fevers.			Diarrhoea and Dysentery 21	Cholera 22	Rheumatic Fever 23	Erysipelas 24	Pyæmia 25	Puerperal Fever 26	Ague 27		
								Typhus 18	Enteric or Typhoid 19	Other or Doubtful 20									
WEST WORTHING URBAN SANITARY DISTRICT.	Under 5 ...																		
	5 upwards																		
	Under 5 ...																		
	5 upwards																		
	Under 5 ...																		
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	Under 5 ...																		
	5 upwards																		
	Under 5 ...																		
	5 upwards																		
Totals	Under 5 ...																		
	5 upwards																		

Sources of information :—In Workhouse and Workhouse Infirmary, 0. Among Out-door Paupers, 0.

GENERAL REPORT

ON THE

HEALTH OF THE COMBINED

SANITARY DISTRICT OF WEST SUSSEX.

THE Combined Sanitary District is formed by the union of seven rural and three urban sanitary districts.

It comprises, with one exception, all the unions in the Western Division of the County.

The district was formed in the early part of the year 1874, and since then two other unions have joined the combination, Midhurst in 1876 and Westbourne in 1880.

In the year 1877 one small area, having been formed into a Local Board, was separated from the rural district of Horsham and did not join the combination.

POPULATION.—The population in 1874 was estimated at 74,797 in the middle of the year; the number is now estimated at 94,770 in the middle of 1881. The actual figures at the census taken on April 3rd, 1881 showed that there were 94,511 persons living in the district; the excess of 259 persons is due to the natural increase of the population between the taking of the census and the middle of the year. The estimates given in previous reports were very near the corrected figures now given: although in some districts considerable corrections were required, yet in the whole district the numbers were very near the mark.

Year.	Estimated number,		Corrected number.	
1876	82,611	...	81,703
1877	83,435	...	82,610
1878	84,258	...	83,627
1879	85,102	..	84,648
1880	..	86,146	...	86,244
1881	94,770	...	94,770

Petworth and Thakeham districts declined during the past decade, whereas allowance had been made for a slight increase. Worthing, on the other hand, increased much more rapidly than had been anticipated.

The births are about twice as numerous as the deaths, but the increase in the population is in nothing like the same proportion. See Report VII., p. 56.

The migration of young persons to large towns causes an excessive proportion of old persons in rural districts and an excessive proportion of adults from 15 to 45 in the large towns. This fact may be clearly seen by the following analysis of the numbers living in Manchester and Salford, in England and Wales and in the three rural districts of Petworth, Thakeham and Midhurst. In 10,000 persons living in each of these areas the numbers at different periods of life are as follows :—

	MALES.							
	All ages	Under 1 year	1—5	5—15	15—25	25—45	45—65	65 and upwd
Manchester & Salford...10,000	337	1086	2194	1948	2843	1246	246	
England & Wales.....10,000	309	1079	2306	1850	2572	1446	438	
Three rural districts ...10,000	261	1038	2301	1802	2297	1637	664	

FEMALES.							
Manchester & Salford...10,000	307	983	2009	2016	2979	1397	309
England & Wales.....10,000	291	1022	2176	1865	2675	1473	498
Three rural districts ...10,000	284	1082	2431	1534	2391	1630	648

The figures are based on the returns of 1871, those for 1881 not being yet published.

BIRTHS.

In the whole of the combined sanitary district, the births of 2868 children were registered; of these 1463 were male and 1405 were female.

Table I. shows the births and birth-rate in each district during the past year and also a general view of the birth-rate in the five previous years.

This table is here summarised :—

Year.	Population.	Births.		Total.	Rate per 1000
		Male.	Female.		
1876...81703	...	1253	1187	2440	29·8
1877...82610	...	1309	1240	2549	30·8
1878...83627	...	1328	1253	2581	30·8
1879...84648	...	1379	1255	2634	31·1
1880...86244	...	1277	1337	2614	30·3
1881...94770	...	1463	1405	2868	30·2
Total		8009	7677	15686	30·5

The birth-rate varies very slightly from year to year; the increased number of births in 1881 is due to the fact that Westbourne is now included in the combination.

In five out of the six years more males were born than females, and the total numbers show that 332 more boys than girls were born. The proportion between the two sexes is therefore 104 male births to every 100 female births, a ratio which is about the same as that which is found throughout England and Wales.

The births are most abundant in the first quarter of the year gradually becoming less frequent in the succeeding months.

Births in each quarter 1876-81.

Six years 1876-81	M.		F.		Total.
1st quarter	1985	...	2018	...	4003
2nd „	2047	...	1928	...	3975
3rd „	1980	..	1890	..	3870
4th „	1997	...	1841	...	3838
	<hr/>		<hr/>		<hr/>
Total	8009		7677		15686

The birth-rate in each district is here shown :—

Mean of six years, 1876-81.

Steyning.	32·4	Midhurst.....	30·4
Horsham	32·3	Westbourne (2 years)	31·0
Petworth	29·1	Worthing	27·6
Thakeham	31·7	Littlehampton..	29·6
East Preston.....	30·2	West Worthing	14·4

Throughout England and Wales the birth-rate during the past year was equal to 33·9 per 1000 persons living; while during the ten years 1871-80 the mean birth-rate was 35·4 per 1000.

The birth-rate in any district is much affected by the distribution of population with regard to age. In large towns there is a much larger proportion of women at the child-bearing period of life than in rural districts. This fact may be more clearly seen by comparing a similar number of females in a large and increasing industrial centre with three agricultural unions in West Sussex where there is no place with more than 2000 inhabitants; a similar number of persons may be taken showing the average distribution throughout England and Wales.

Locality.	Females	Under 15	15—25	25—45	45 and upwards.
Manchester and Salford ...	10,000	3299	2016	2979	1706
England and Wales	10,000	3489	1865	2675	1971
Petworth, Thakeham and					
Midhurst	10,000	3797	1534	2391	2278

These figures are calculated from the census returns of 1871.

There is no record in the returns of the number of children born out of wedlock. In Sussex the proportion of illegitimate children is about 5 to every 100 births, a rate which shows a decrease as compared with by-gone years; in the ten years 1855-64 the proportion was 6·6, and during 1865-74 it was 5·6 to every 100 births.

This rate is very low as compared with agricultural districts in Scotland where the proportion is sometimes as high as 18 and even 20 per cent.

DEATHS.

In the whole of the Combined Sanitary District the deaths of 1323 persons were registered; of these 720 were male and 603 were female.

The death-rate in each district during the past year is here shown:—

Name of Sanitary Authority.	Population in middle of 1881.	Births.	Birth-rate per 1000.	Deaths.	Death-rate per 1000.
Steyning	16,225	544	33·5	197	12·1
Horsham	15,510	503	32·4	197	12·7
Petworth	9,550	292	30·6	158	16·5
Thakeham	8,290	231	27·8	114	13·7
East Preston	8,080	233	28·8	128	15·8
Midhurst	13,987	412	29·4	205	14·6
Westbourne	7,418	212	28·5	91	12·2
Worthing	11,100	324	29·2	170	15·3
				150*	13·5*
Littlehampton	3,910	105	26·8	58	14·8
				55*	14·0*
West Worthing.....	700	12	17·1	5	7·1
Total	94,770	2868	30·2	1323	13·9
				1300*	13·7*

*Excluding visitors.

There were 1319 deaths actually registered within the whole district, but to this number should be added the deaths of 23 persons occurring outside the district among persons belonging thereto; from this total of 1342 should be deducted the deaths of 42 persons occurring within the district among persons not belonging thereto, leaving the total number as above at

1800. Of these 42 persons, 23 were visitors at Worthing and Littlehampton, and 19 were persons who died in workhouses and who came from parishes not included in the combination.

As in previous years, the 23 visitors are added to the deaths, so that this general report deals with 1323 deaths. It is difficult in some cases to define what is included in the term "visitor," and by making a too free use of the term the death-rate might appear unduly low. There must be some persons who die away from this district every year but who yet properly belong to it, of whom no account can be taken.

It seems, therefore, the best plan to state as above the number of visitors and then to treat them as forming part of the total number of deaths.

The general death-rate of 13·9 last year was lower than in any previous year, and this decrease is to be noticed not only in West Sussex but throughout the whole country.

The death-rate in England and Wales during 1881 was equal to 18·9 per 1000 of population and it was the lowest rate recorded since registration was established in 1837; it was no less than 2·5 per 1000 below the average that prevailed in the ten years 1871-80.

There is always a much higher rate of mortality in large towns than in country districts.

	Death-rate in 1881.	Mean death-rate 1871-80.
Chief Towns.....	20·3	23·1
Small towns and Country parishes }	.....16·8	19·0

The south-eastern division, which includes Kent, Surrey, Sussex, Hampshire and Berkshire, has always a lower rate of mortality than the other registration divisions.

	Rate in S. E. Division.	Rate in West Sussex.	Rate in England.
1851-60.....	19·6 ... ..	...	22·2
1861-70.....	19·1 ... ..	...	22·4
1875	18·9	17·0	22·8
1876	17·4	16·5	21·0
1877	16·4	14·6	20·4
1878	17·8	16·1	21·7
1879	17·0	15·2	21·0
1880	17·6	14·9	20·7
1881	16·0	13·9	18·9

The decrease in the mortality which this general view of the country presents, is most marked since the passing of the Public

Health Act, 1872, and it is probable that improved sanitary measures have helped to bring about this change.

The deaths and death-rate in each of the past six years are here shown:—

Year.	Population.	Deaths		Total.	Rate per 1000 persons living
		Male.	Female.		
1876...	81703	725	626	1351	16.5
1877...	82610	642	570	1212	14.6
1878...	83627	690	664	1354	16.1
1879...	84648	695	597	1292	15.2
1880...	86244	689	598	1287	14.9
1881...	94770	720	603	1323	13.9
Total		4161	3658	7819	15.2

In each quarter of the past year the deaths were thus distributed:—

	DEATHS.		Total,
	Male.	Female.	
1st Quarter	198	171	369
2nd „	209	145	354
3rd „	156	151	307
4th „	157	136	293
Total	720	603	1323

The deaths in the different quarters of the past six years have been as follows:—

	Deaths.		Per cent.
	Male.	Female.	
1st Quarter	2233	2233	28.5
2nd „	1999	1999	25.6
3rd „	1775	1775	22.7
4th „	1812	1812	23.2
Total	7819	7819	100.0

In each quarter of the past six years the deaths were thus distributed:—

Year.	1st Qr.	2nd Qr.	3rd Qr.	4th Qr.	Total.
1876 ...	406	339	293	313	1351
1877 ...	330	324	266	292	1212
1878 ...	366	322	329	337	1354
1879 ...	398	327	266	301	1292
1880 ...	364	333	314	276	1287
1881 ...	369	354	307	293	1323
Total...	2233	1999	1775	1812	7819
Mean...	319	285.5	253.5	259	1117

The ordinary quarters of the year do not show very well the influence of season. The average daily temperature is lowest in the second week of January and it is highest in the middle of July. If the year be divided into three portions corresponding to cold, moderate and hot periods, it will be found that the average temperature is 41 degrees early in December, sinking gradually to 36 degrees in the middle of January, when it begins to rise slowly again and it reaches 41 degrees again about the second week in March. These four months, December to March, form the cold period, or the true winter in this climate.

In the first week of June the average temperature is 57 degrees and then it gradually rises to 63 degrees by the middle of July when it again sinks and reaches 57 degrees again about the third week in September. These four months, June to September, form the hot period, or the true summer in this climate. April, May, October and November together form a period of moderate severity ranging from 41 to 57 degrees.

If the whole number of deaths during the past six years be apportioned according to this division the result is as follows :—

COLD		Deaths.	Per cent.
Dec. to March.....	37 deg.—41 deg. ...	2886 ...	37·0
April, May, } Oct., Nov. }	MODERATE ...41 deg.—57 deg. ...	2558 ...	32·7
HOT			
June to Sept.	57 deg.—63 deg. ...	2375 ...	30·3
		<hr/> 7819	<hr/> 100·0

Table V. gives the number of deaths in each month 1876-81, and also the mean temperature in each month. April and May are much more fatal months than one is apt to suppose; the daily range of temperature is great, and dry easterly winds are often prevalent. October and November are much more healthy months; the nights are often cold, but the daily range of temperature is not so great and the winds are not so keen and piercing.

The lowest mortality is in July, November and October, the highest mortality in January and February.

Table II. gives the ages at death for males and females during 1881 at fifteen periods of life, and Table III. gives similar facts for the whole district during the past six years.

The deaths at different groups of ages during the past year were as follows :—

	Under 1 year	1—5	5—15	15—25	25—60	60 and upwds.	Tl.
1st Quarter ...	67	29	17	17	71	168	369
2nd „ ...	55	27	19	18	98	137	354
3rd „ ...	70	20	11	13	76	117	307
4th „ ...	47	23	13	14	75	121	293
Total ...	239	99	60	62	320	543	1323

The following figures give the numbers dying at various groups of ages during the quarters of the past three years. This table should be examined with the temperature tables for the corresponding period, whereby the influence of cold and heat upon young and old may be seen.

	Under 1 year.	1—5.	5—15.	15—25.	25—60.	60 and upwds.	Tl.
3 years, 1879-81.							
1st Quarter ...	213	114	52	57	205	490	1131
2nd „ ...	177	77	62	51	242	405	1014
3rd „ ...	206	76	39	48	211	307	887
4th „ ...	141	64	40	49	212	364	870
Total ...	737	331	193	205	870	1566	3902

Table III, is here summarised :—

Year.	At all Ages	Under 1 year.	1 to 5.	5 to 15.	15 to 25.	25 to 60.	60 and upwards
1876	1351	252	158	64	64	331	482
1877	1212	218	86	69	61	316	462
1878	1354	261	127	65	60	310	531
1879	1292	231	98	57	75	280	551
1880	1287	267	134	76	68	270	472
1881	1323	239	99	60	62	320	543
Total	7819	1468	702	391	390	1827	3041
Per 10,000...	10,000	1877	897	500	500	2338	3888

The census tables are not yet published, showing the number of persons living in the district at these different groups of ages ; when they are issued the death-rate at each period of life may then be calculated and contrasted with the rate which prevails in other districts. To state the general death-rate at so much per 1000 is in some cases apt to mislead, because there are variations in the death-rate in different areas due to distribution of population, apart altogether from sanitary conditions.

The presence of a large school, a prison, a workhouse or an asylum will materially affect the death-rate of a small district. In a small town where there are several schools the death-rate would be low, while if the public institutions were outside the district and the deaths in them were not properly credited to the town, the rate of mortality would appear absurdly low.

Whenever the death-rate of a district is given as unduly low, either the period for which the rate is taken is too short, or there are elements in the case which have not been taken into consideration. One extreme example will serve as an illustration. In an agricultural village with 500 inhabitants and an average death-rate of 14 per 1000 there would be, of course, 7 deaths a year. If in this village a large school, containing 500 boys from 10 to 15 years of age, were established the deaths would not be 14 but 9, and the death-rate would be then not 14, but 9 per 1000 persons living in such a place. The 500 boys would only add on the average 2 deaths a year because the mortality at that period of life is about 4 per 1000, while the 500 original inhabitants at all ages would supply their yearly quota of 7 deaths. Thus merely by changing the normal proportion of persons living in a district, the death-rate may be materially altered without any change in its sanitary condition.

In a similar manner it might be shown that an opposite set of circumstances, such as the existence in a district of a workhouse where many old people die, would raise the mortality above the average.

The best test of the healthy state of a district is to compare the death-rate at several different groups of ages over a term of several years. Then if the population be accurately known, and if the total number of deaths be carefully recorded, a good idea may be obtained of the sanitary state of the district.

MEAN AGE AT DEATH.

This is not a good test of sanitary condition, because it fails to take into account the number of persons living within the area whence the facts are obtained. The mean age at death is obtained by adding together the years lived and dividing by the numbers dying in the area within a given time.

The 1323 persons who died in West Sussex last year lived 56,037·5 years, and this number divided by 1323 gives a mean age at death of 42·35 years.

This is, however, a little below the actual mean age owing to the returns slightly understating the age. A man returned as dying at 60 might really be nearly 61, and so at all ages above one year a person dying at any given year of life may really be a few months older, and this would slightly raise the mean

age, as given above, to 42·76 years if six months of life were, added to each person dying.

Below one year of life the age is generally given in days, weeks or months.

Table IV. shows the mean age at death in each district for males and females and it is here summarised :—

Mean Age at Death in 1881.

	No. of Deaths,	Years lived.	Mean.	Corrected Mean.
Both sexes.....	1323.....	56,037·5.....	42·35.....	42·76
Males	720.....	29,387·9.....	40·81.....	41·21
Females	603.....	26,649·6.....	44·19.....	44·62

The facts detailed above, showing how much the population varies in different districts, prevent this method becoming a fair one for purposes of comparison.

It is, however, useful when the district is compared with another similar in size and in the composition of its population.

ZYMOTIC DISORDERS.

Out of 1323 deaths from all causes in 1881, 103 were due to this class of disorders, or one death to every 1000 persons living. The rate during the past six years has been as follows :—

In 1876 the rate was 206 per 100,000 persons living.

1877	„	113	„	„
1878	„	165	„	„
1879	„	93	„	„
1880	„	198	„	„
1881	„	108	„	„

The mean rate was 147 per 100,000.

The above rates include all the forms of zymotic disease. The Registrar-General's returns show that in England and Wales the rate of mortality from the seven principal zymotic diseases alone has been 3·11, 2·71, 3·32, 2·44, 3·30, and 2·24, giving an average of 2·85 per 1000, against 4·11 and 4·14 in the two preceding decades—1851-60 and 1861-70.

In this combined district the mean rate from the seven principal zymotic diseases alone has been 1·32 per 1000. Table VI. shows the deaths and death-rate in 1881 and in the five previous years. Diarrhœa and whooping-cough head the list as regards frequency, followed at a long interval by diphtheria and scarlatina, enteric fever, and measles.

Table VII. shows the zymotic mortality in 1881 in each month of the year. March, April, and May show the highest mortality, while in December there were no deaths recorded.

INFANT MORTALITY.

There were, during the past year, 239 deaths under one year of age out of a total of 1323 deaths. There were 2868 births, so that the infant mortality, as measured by the number of deaths under one year of age to every 1000 children born, was 83, against a rate of 103, 85, 101, 87, and 102 in the five preceding years.

The mean rate for the six years is, therefore, 93 deaths to every 1000 births. This is very much less than the rate throughout England and Wales, which was, during last year, 130, against a rate of 158, 146, 136, 152, 135, and 153 in the six preceding years. The proportion of infant mortality averaged 149 per 1000 during the ten years 1871-80.

The rate of infant mortality in each district on the average of the past six years is here shown :—

Average Infant Mortality, 1876-81.

Steyning.....	104	Midhurst	84
Horsham	89	Westbourne (2 years)	82
Petworth	87	Worthing	109
Thakeham ..	85	Littlehampton	95
East Preston ..	93	West Worthing ..	114

CAUSES OF DEATH.

In this report more regard has been paid to the ages at which people die than to the diseases from which they die. This is due to the fact that the ages are much more correctly stated than the diseases. It would be very easy to prove that one disease is more fatal or less fatal now than at a previous period if the causes of death were alone considered. Thus consumption used to be put down as a cause of death in young children and in infants; now it is commonly confined to persons above fifteen years of age. Improved means of diagnosis have separated deaths from dropsy into heart disease and kidney disease, so that the mere frequency of these names in the register is no proof of the increased frequency in these diseases.

Acute tuberculosis—a disorder from which many children in the country die—hardly finds a place in the returns, except among the younger generation of medical men. In many cases symptoms are given instead of diseases, as jaundice, dropsy, teething, diarrhoea. It is, therefore, very difficult to compare a district at different periods of time in consequence of the changes in nomenclature. By taking main divisions or classes the comparison is less liable to err, but it is quite useless to make tables involving too minute a sub-division of disorders. No one probably ever reads them, and, if they were read, the information obtained would be full of fallacies.

Table X. is an attempt to give the causes of death under a few leading divisions.

Old age is probably the most frequent cause of death in this district. Out of 7819 deaths in 1876-81, 2039 were 70 years of age and upwards, and at this period of life all deaths, except perhaps accidents, might properly be put down to old age. In the returns the cause of death is variously given as paralysis, apoplexy, senile decay, heart disease, bronchitis, &c., according to the most prominent symptom, or to the special organ affected. But in truth nearly all deaths at this time of life are due to senile changes; in some, one organ may be affected more than another, just as some people become prematurely old. Viewed in this manner, Table III. is interesting as showing the deaths at different periods of life; and when the number of persons living at different ages is published the death-rate at various ages will be easy of comparison. Out of 7819 deaths in six years, 1468 die in the first year of life, the number sinking to 378 in the second year, while only 324 die between two and five years. From ten to fifteen there is the lowest mortality, and the number gradually increases up to sixty, when for most people their work is ended.

An approximate estimate of the population in this district at various groups of ages is here given, and the death-rate is compared with that of England and Wales:—

	At all Ages.	Under 1.	1-5.	5-15.	15-25.	25-60.	60 & over
Population ...	94770	2570	9640	22000	16720	35440	8400
Deaths.....	1323	239	89	60	62	320	540
Death-rate in each group.....	13.9	93.0	12.7	2.7	3.8	9.0	64.6
Death-rate in Eng- land in the ten years 1861-70 ...	22.4	180.4	36.3	6.3	7.2	14.0	67.7

HOURS OF SUNSHINE.

The following figures are taken from the Kew records; they show approximately the hours of bright sunshine in this district during the last few years:—

	1878. hours.	1879. hours.	1880. hours.	1881. hours.
1st Quarter	141	138	235	176
2nd „	500	352	524	559
3rd „	451	355	487	526
4th „	158	138	168	245
Year	1250	983	1414	1506

A monthly record of the amount of sunshine at Glynde, near Lewes, has been taken since 1879; During the past three years

the number of hours have been respectively 1038, 1323, and 1445; these figures correspond pretty closely with those recorded at Kew.

RAINFALL.

The rainfall for the past year at three places in the combined district is here shown :—

WORTHING

HORSHAM.

PETWORTH.

(T. W. Cowan, Esq.) (Rev. C. Holland.)

1881.	Rainfall in inches.	No. of rainy days.	Rainfall in inches.	No. of rainy days.	Rainfall in inches.	No. of rainy days.
Jan.	1·13	9	0·87	8	1·42	6
Feb.	3·68	14	3·22	12	3·46	10
March ...	2·76	12	2·52	12	3·07	9
April ...	0·78	8	0·43	9	0·54	4
May	1·16	9	1·02	10	1·30	7
June ...	2·94	11	1·98	11	1·69	11
July	1·68	11	0·73	10	3·09	7
Aug. ..	4·36	19	5·60	20	5·94	17
Sept. ...	2·65	13	2·98	18	2·82	13
Oct.	2·16	15	2·60	18	2·13	9
Nov. ...	3·70	22	4·00	17	5·44	12
Dec.	2·97	18	3·58	18	3·99	10
	29·97	161	29·53	163	34·89	115

More rain falls in the Weald of Sussex than along the sea-coast; this may be seen by comparing the rainfall for a term of years :—

Year.	Worthing. inches.	Petworth. inches.	Horsham. inches.
1875	30·57	34·14	—
1876	30·14	37·72	—
1877	35·39	44·89	—
1878	29·42	32·68	—
1879	32·13	43·68	—
1880	32·91	46·38	34·10
1881	29·97	34·89	29·53
Mean...	31·50	39·20	32·81

TEMPERATURE.

The facts here given are taken chiefly from the published weekly and monthly records of the Meteorological Office so far as they affect the South of England :—

	1878.			1879.			1880.			1881.		
	Highest.	Lowest.	Average.	Highest.	Lowest.	Average.	Highest.	Lowest.	Average.	Highest.	Lowest.	Average.
Jan.	56	22	41·3	57	15	33·8	57	13	35·0	54	4	31·6
Feb.	61	24	41·0	53	17	38·0	55	9	40·5	53	23	39·0
March ...	59	24	44·6	64	21	40·8	65	22	44·8	62	22	43·0
April ...	66	27	48·5	62	25	44·0	67	32	47·8	69	26	47·3
May	74	36	55·0	69	24	47·8	78	28	50·8	76	28	53·5
June ...	91	36	59·8	71	39	56·0	86	33	56·4	87	35	58·4
July	88	43	63·8	75	44	58·0	79	44	61·5	95	36	63·5
Aug. ...	81	46	63·0	80	44	61·5	79	44	63·3	84	38	59·3
Sept. ...	75	31	58·6	74	36	57·0	87	40	61·6	75	35	56·2
Oct.	75	30	51·8	67	28	50·8	71	26	49·8	63	21	46·0
Nov. ...	54	24	40·5	58	17	41·8	60	16	43·6	64	28	49·5
Dec.	56	8	33·8	53	10	32·8	58	27	43·8	55	20	40·5

Comparing these values with the data obtained from 13 years' observations as determined by Mr. Buchan, it will be found that the mean temperature for the past four years has been below the average. The following summary shows that 1879 was the coldest of the series.

	1878.	1879.	1880.	1881.
	Weeks.	Weeks.	Weeks.	Weeks.
Above the average ...	22	3	18	12
Below the average ...	25	46	28	37
Average	5	3	6	3
	—	—	—	—
	52	52	52	52

A comparison of this table with the amount of sunshine and rainfall in each year will show how dark and gloomy was the year 1879; since that period the weather has been gradually improving; last year was cooler than 1880, but there was less rain and more sunshine.

The following table is taken from observations made by W. J.

WATER SUPPLY.

WORTHING.—The two wells have been enlarged by driving headings, and so the quantity of water has been increased. A new engine and new boilers have been erected. As this town is rapidly increasing in size, it is probable that before long the water supply must be supplemented by driving fresh headings in the chalk, or by obtaining water from the foot of the Chalk Downs near Broadwater and Sompting.

PETWORTH.—This town, after much delay, is about to be supplied with good and wholesome water.

LITTLEHAMPTON.—A good supply of water has been obtained from the chalk; waterworks have been erected, and mains are now being laid through the town.

PORTSLADE has been well supplied with water from the waterworks at Shoreham, and the mains of this company have been extended to a reservoir on the Downs, so that the old village of Portslade has now an abundant supply.

In addition to these larger works, great numbers of wells have been made in different parts of the district, and when new houses are now built, a certificate is required that there is a sufficient supply of water before the house is occupied.

In many places tanks for collecting rain-water have been constructed, but this has not been attended with much success. More care is now bestowed by people on the sources of drinking water, and each year an increased quantity is sent for analysis.

DRAINAGE AND SEWAGE.

WORTHING.—In this town the sewage farm is not used now, but all the sewage runs into the sea at a point about a mile to the east of the town. The new main sewer was laid down in 1878, and it appears to answer very well. Great improvements have taken place during the last few years in the ventilation of the sewers and house drains, and the by-laws have been altered and carried out more strictly. (Report VII., pp. 43-45.)

PETWORTH.—A new system of main sewerage and drainage has been carried out, but at present it is not in use, nor will it be used until the water supply is completed. There are two outfalls, one to the north and one to the south of the town, and in each case the sewage will be passed over the land and used for irrigation.

LITTLEHAMPTON.—The new system of main sewerage and drainage is nearly completed, and then the sewage will be carried away to sea at low water.

In all parts of the district there has been a great improvement in the system of excrement disposal. In many schools and

workhouses the earth system has been adopted with much success. The surroundings of the cottages are much better than they used to be, and filth is not allowed to accumulate. In villages it is seldom that any system of drainage is required, for when a cottage is surrounded by a garden, all refuse can be utilised on the soil. The best type of a healthy dwelling is a well-built cottage, surrounded by a garden, and having no drains. The earth-system should be adopted, and all refuse or filth of any kind should be utilised by returning it to the soil. Good water is the great thing required in villages, and it is of more importance than any elaborate scheme of drainage. In country places the proper thing is to minimise the quantity of excreta to be dealt with, and therefore the disposal of sewage by water-carriage should not be allowed. In towns, or in rapidly-growing places, where the houses are closely packed together, drains and sewers must be laid down, but under no conditions can such houses be as healthy as those in a village. Most of the houses that were built twenty years ago were made on a wrong principle, and it is more common to find illness in the houses built at that time, with "every sanitary improvement," than in any others. The chief work of the past few years has been to undo the mischief then wrought. In the present day, all direct connection of the house-drains with the sewers is avoided, ventilation is better carried out, and the chances of sewer-gas entering a house are lessened.

The tables which are appended to this general report are of much interest, as they give a full statistical account of the sanitary condition of the whole district for a long term of years.

Table I. shows the Births and Birth-rate in each district during the past year, and also the Births and Birth-rate in the whole district during the past six years.

Table II. shows the Ages at Death of those who died in each district during the past year.

Table III. shows the Ages at Death of those who died in the whole district during the past six years.

Table IV. shows the Mean Age at Death of those who died last year in each district.

Table V. shows the Deaths that have taken place in each month of the past six years, and it also shows the average temperature in each month.

Table VI. shows the Deaths and Death-rate from Zymotic Diseases in each district during the past year, and in the whole district during the past six years.

Table VII. shows the Zymotic Deaths in each month of the past year.

Table VIII. shows the Annual Death-rate in each district from all causes and from various causes during a period of seven years.

Table IX. shows the annual number of Deaths from all causes and from various causes ; also the Annual Death-rate from all causes and from various causes in the whole district during the past six years.

Table X. shows the causes of Death of all persons who Died in each district during the past year.

Table XI. shows the Accidental Deaths in 1881 and in the four previous years.

Table XII. shows the Deaths by Suicide during the past year and in the six previous years.

(A) TABLE OF DEATHS during the year 1881, in the Combined Sanitary District of WEST SUSSEX, classified according to Diseases, Ages, and Localities, and showing also the Population of such Localities, and the Births therein during the year.

Names of Localities adopted for the purpose of these Statistics; public institutions being shown as separate localities.	POPULATION AT ALL AGES.	Registered Births.	MORTALITY FROM ALL CAUSES AT SUBJOINED AGES.							MORTALITY FROM SUBJOINED CAUSES, DISTINGUISHING DEATHS OF CHILDREN UNDER FIVE YEARS OF AGE.																						
	Census 1881.		At all ages	Under 1 year	1 and under 5	5 and under 15	15 and under 25	25 and under 60	60 and upwards		Small Pox	Measles	Scarlatina	Diphtheria	Croup (not "spasmodic")	Whooping Cough	Cont. Fevers,			Diarrhoea and Dysentery	Cholera	Rheumatic Fever	Erysipelas	Pyæmia	Puerperal Fever	Ague	Phthisis	Bronchitis and Pneumonia	Heart Disease	Injuries	Other Diseases	
																	Typhus	Enteric or Typhoid	Other or doubtful													
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	
STEYNING R. S. D.	16,173	544	185	48	14	2	10	44	67	Under 5				1						5			1					10	1	1	43	
										5 upwds	1			1				4		2			1	1			14	7	14	4	74	
HORSHAM R. S. D.	15,487	503	203	41	14	8	9	55	76	Under 5						8				3								11		1	32	
										5 upwds			1	2					1	2		2		1	2		22	21	13	6	75	
PETWORTH R. S. D.	9,563	292	158	28	10	9	9	34	68	Under 5																		11		1	26	
										5 upwds				3				1									13	27	17	5	54	
THAKEHAM R. S. D.	8,295	231	114	14	10	6	6	32	46	Under 5			1	3						1								4			15	
										5 upwds			1														17	10	8	6	48	
EAST PRESTON R. S. D.	8,058	233	141	22	5	13	7	29	65	Under 5			2	3		1				1								3		1	16	
										5 upwds			3	6								2	1		1		12	13	15	5	56	
MIDHURST R. S. D.	13,964	412	205	34	22	10	9	42	88	Under 5			2	3		1							1					14		1	34	
										5 upwds			1	1				6		1		1	1		1		14	19	20	2	82	
WESTBOURNE R. S. D.	7,413	212	91	13	5	3	2	19	49	Under 5													1					3		1	13	
										5 upwds				1									1		1		7	12	9	2	40	
WORTHING U. S. D.	10,976	324	162	28	15	8	7	48	56	Under 5			1	1						2								11			28	
										5 upwds			3					1				2					11	11	19	6	66	
LITTLEHAMPTON U. S. D.	3,894	105	55	11	4	—	3	16	21	Under 5		1																2			12	
										5 upwds																	7	4	8	1	20	
WEST WORTHING U. S. D.	688	12	5	1	—	—	—	1	3	Under 5																					1	
										5 upwds																						3
TOTALS	94,511	2,868	1319	240	99	59	62	320	539	Under 5		1	6	11		10				12			3					69	1	6	220	
										5 upwds	1		9	14				12	1	5		7	4	2	5		117	124	124	37	518	
Deaths occurring outside the district among persons belonging thereto			23	—	—	1	—	1	21	Under 5																						
										5 upwds																		3	1		19	
Deaths occurring within the district among persons not belonging thereto.....			42	5	3	—	2	9	23	Under 5																					8	
										5 upwds																	2	4	1	4	23	

(B) TABLE OF NEW CASES OF SICKNESS coming to the knowledge of the Medical Officer of Health, during the year 1881 in the Combined Sanitary District of WEST SUSSEX, classified according to Localities and Diseases.

NAMES OF LOCALITIES.	NEW CASES OF SICKNESS IN PERSONS BELONGING TO THE DISTRICT, DISTINGUISHING THOSE IN CHILDREN UNDER FIVE YEARS OF AGE.																	Other Diseases, such as Chicken Pox or Pneumonia, which the Medical Officer of Health thinks well to record.
		Smallpox	Measles	Scarlatina	Diphtheria	Croup (not "spasmodic")	Whooping Cough	Cont. Fevers.			Diarrhoea and Dysentery	Cholera	Rheumatic Fever	Erysipelas	Pyæmia	Puerperal Fever	Ague	
	11	12	13	14	15	16	17	Typhus	Enteric or Typhoid	Other or Doubtful	21	22	23	24	25	26	27	
STEYNING R. S. D.	Under 5 ...			1			2		2									
	5 upwards	2		5					9	2	6		2	5			3	
HORSHAM R. S. D.	Under 5 ...			1	1		14				2							
	5 upwards			2	2		4				13			2				
PETWORTH R. S. D.	Under 5 ..			2	2						7							
	5 upwards			3	13						13		3	2				
THAKEHAM R. S. D.	Under 5 ...			5														
	5 upwards			8	1				3		2			2				
EAST PRESTON R. S. D.	Under 5 ...			2			3				1			1				
	5 upwards			4					5		5		1	5				
MIDHURST R. S. D.	Under 5 ...				2		1				1							
	5 upwards	2		6	4				4		6							
WESTBOURNE R S. D.	Under 5 ..						1				2			1				
	5 upwards										6			6			1	
WORTHING U. S. D.	Under 5 ...			1							3							
	5 upwards	1									1			3				
LITTLEHAMPTON U. S. D.	Under 5 ..																	
	5 upwards								1					1				
WEST WORTHING U. S. D.	Under 5 ...																	
	5 upwards																	
Totals	Under 5 ...			12	5		21		2		16			2				
	5 upwards	5		28	20		4		22	2	52		6	26			4	

Sources of information :—In Workhouse and Workhouse Infirmary, 271. Among Out-door Paupers, 2,765. As In-patients of Hospitals, 65. As Out-patients of Hospitals, 1,075.

Table II.—Showing the Ages at Death of 1323 persons in the Combined Sanitary District in 1881.

Name of Sanitary Authority.	Total	Und. 1	-2	-5	-10	-15	-25	-30	-40	-50	-60	-70	-80	-90	-100	over 100
Steving R, S. A.	M. 110	33	3	4	...	1	6	3	6	6	7	7	18	14	2	...
Horsham	F. 87	15	2	5	...	2	4	4	6	4	8	14	14	8	1	...
"	M. 112	26	3	4	...	...	6	...	7	10	12	15	17	5	1	...
"	F. 85	14	6	1	...	2	3	4	6	5	11	18	10	5	...	...
Petworth	M. 84	17	5	2	...	2	4	3	8	4	2	10	18	7	...	...
"	F. 74	11	3	...	4	1	5	1	7	5	4	11	13	9	...	...
Thakeham	M. 63	9	3	4	...	...	3	2	5	2	9	6	8	7	1	...
"	F. 51	5	...	3	...	...	3	5	3	1	5	6	9	6	...	...
East Preston	M. 70	13	1	2	...	2	4	1	6	3	2	10	9	10	1	...
"	F. 58	9	...	2	6	2	3	2	4	4	7	7	10	5	1	...
Midhurst	M. 118	20	6	5	3	2	5	2	5	7	11	19	22	6	5	...
"	F. 87	14	5	5	3	2	4	2	5	3	6	14	15	7	...	...
Westbourne	M. 47	6	1	1	...	1	2	1	2	4	6	5	6	12	...	...
"	F. 44	7	2	1	...	...	...	2	1	2	3	11	6	8	1	...
Worthing U.S.A.	M. 78	18	5	4	...	1	3	2	3	10	6	10	6	7	...	...
"	F. 92	10	5	1	3	1	4	5	5	9	9	12	17	10	...	1
Littlehampton	M. 34	8	2	1	...	...	1	4	3	...	3	4	2	6	...	...
"	F. 24	3	1	...	...	...	2	...	1	2	3	4	5	2	1	...
West Worthing	M. 4	1	...	...	...	...	...	...	...	...	...	2	...	...	1	...
"	F. 1	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...
Total	M. 720	151	29	28	20	9	34	18	44	49	56	91	106	74	11	...
"	F. 603	88	24	18	21	10	28	25	38	36	54	97	99	60	4	1
Total, both sexes	1323	239	53	46	41	19	62	43	82	85	110	188	205	134	15	1

Table I.—Showing the Births in each District in 1881.

District.	First Quarter.			Second Quarter.			Third Quarter.			Fourth Quarter.			Year.		Rate per 1000.
	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.
Steyning	51	56	107	76	78	154	69	77	146	66	71	137	262	282	544
Horsham	77	58	135	66	52	118	68	68	136	50	64	114	261	242	503
Petworth	46	40	86	35	37	72	49	32	81	27	26	53	157	135	292
Thakeham	28	27	55	37	19	56	30	35	65	23	32	55	118	113	231
East Preston	29	26	55	29	27	56	28	42	70	26	26	52	112	121	233
Midhurst	56	67	123	55	51	106	47	47	94	50	39	89	208	204	412
Westbourne	30	22	52	32	26	58	23	32	55	25	22	47	110	102	212
Worthing	44	35	79	46	40	86	41	30	71	41	47	88	172	152	324
Littlehampton ..	12	16	28	17	6	23	11	18	29	14	11	25	54	51	105
West Worthing..	2	—	2	4	2	6	2	—	2	1	1	2	9	3	12
Total	375	347	722	397	338	735	368	381	749	323	339	662	1463	1405	2868
In 1876	323	318	641	298	295	593	305	311	616	327	263	590	1253	1187	2440
In 1877	300	338	638	365	323	688	298	274	572	346	305	651	1309	1240	2549
In 1878	339	320	659	360	300	660	320	319	639	309	314	623	1328	1253	2581
In 1879	329	332	661	319	320	639	359	277	636	372	326	698	1379	1255	2634
In 1880	319	363	682	308	352	660	330	328	658	320	294	614	1277	1337	2614

Table IV.—Showing the Mean Age at Death in 1881.

Authority.	No. of Deaths	Years lived.	Mean.	Male and Female Mean.
Steyning	197	8036 1	40·8	{ M. $4264\cdot6 \div 110 = 38\cdot8$ F. $3771\cdot5 \div 87 = 43\cdot3$
Horsham	197	7854·4	39·9	{ M. $4279\cdot3 \div 112 = 38\cdot2$ F. $3575\cdot1 \div 85 = 42\cdot0$
Petworth	158	6575·5	41·6	{ M. $3317\cdot0 \div 84 = 39\cdot5$ F. $3258\cdot5 \div 74 = 44\cdot0$
Thakeham	114	4989·7	43·7	{ M. $2753\cdot3 \div 63 = 43\cdot7$ F. $2236\cdot4 \div 51 = 43\cdot8$
East Preston ..	128	5407·0	42·2	{ M. $301\cdot01 \div 70 = 43\cdot0$ F. $2396\cdot0 \div 58 = 41\cdot3$
Midhurst	205	8709·0	42·5	{ M. $5148\cdot5 \div 118 = 43\cdot6$ F. $3560\cdot5 \div 87 = 40\cdot9$
Westbourne ..	91	4624·0	50·8	{ M. $2354\cdot0 \div 47 = 50\cdot0$ F. $2270\cdot0 \div 44 = 51\cdot6$
Worthing	170	7041·8	41·4	{ M. $2739\cdot5 \div 87 = 35\cdot1$ F. $4302\cdot3 \div 92 = 46\cdot7$
Littlehampton ..	58	2523·0	43·5	{ M. $1296\cdot7 \div 34 = 38\cdot1$ F. $1226\cdot3 \div 24 = 51\cdot1$
West Worthing	5	277·0	55·4	{ M. $224\cdot0 \div 4 = 56\cdot0$ F. $53\cdot0 \div 1 = 53\cdot0$
Total	1323	56037·5	42·35	
Male	720	29,387·9	40·81	
Female	603	26,649·6	44·19	

Table III.—Showing the Ages at Death in the Combined Sanitary District in the Six years 1876-81.

Year.	Population.	Total.	und. 1	-2	-5	-10	-15	-25	-30	-40	-50	-60	-70	-80	-90	-100	over 100.
1876	81,703	M. 725	135	42	45	22	15	41	16	38	45	64	93	105	59	5	...
1877	82,610	F. 626	117	29	42	12	15	23	33	36	46	53	58	89	66	7	...
1878	83,627	M. 642	127	20	19	20	14	30	29	40	37	58	86	96	59	7	...
1879	84,648	F. 570	91	26	21	19	16	31	25	46	34	47	81	73	51	9	...
1880	86,244	M. 690	150	33	29	16	8	29	17	40	34	60	83	114	74	3	...
1881	94,770	F. 664	111	42	23	23	18	31	28	35	33	63	86	102	59	9	1
		M. 695	130	27	19	16	10	35	20	37	46	52	102	135	59	7	...
		F. 597	101	22	30	21	10	40	9	24	41	51	69	103	67	8	1
		M. 689	156	42	25	20	12	28	18	29	36	73	91	113	40	6	...
		F. 598	111	42	25	25	19	40	15	29	28	42	65	95	60	2	...
		M. 720	151	29	28	20	9	34	18	44	49	56	91	106	74	11	...
		F. 603	88	24	18	21	10	28	25	33	36	54	97	99	60	4	1
	Total	M. 4161	849	193	165	114	68	197	118	228	247	363	546	669	365	39	...
		F. 3658	619	185	159	121	88	193	135	208	218	310	456	561	363	39	3
	Total, both sexes	7819	1468	378	324	235	156	390	253	436	465	673	1002	1230	728	78	3
	Per 10,000	10,000	1877	483	414	300	200	500	324	558	595	861	1281	1573	931	100	3

Table V.—Showing the Deaths in each Month of the Six years
1876-81.

Month.	1876	1877	1878	1879	1880	1881	Total	Average Temp.
January	116	103	137	150	126	125	757	38.9
February	144	115	126	119	129	118	751	39.7
March	146	112	103	129	109	126	725	41.5
April	124	111	115	130	121	131	732	47.2
May	120	104	98	113	115	117	667	52.7
June	95	109	109	84	97	106	600	59.8
July	78	88	100	75	92	93	526	62.5
August	131	84	98	92	106	110	621	61.9
September	84	94	131	99	116	104	628	57.5
October	107	96	103	82	85	109	582	50.9
November	102	86	103	88	100	98	577	42.8
December	104	110	131	131	91	86	653	40.8
Total	1351	1212	1354	1292	1287	1323	7819	

The average temperature is taken from the records at Greenwich
1849-68.

Table VI.—Showing the Deaths and Death-rate from Zymotic Diseases in 1881, and in the 6 years, 1876-81.

District.	Small-pox.	Measles.	Scarlatina.	Diphtheria.	Whooping-cough.	Cont. Fevers.			Diarrhæ and Dysentery.	Rheumatic Fever.	Erysipelas.	Pyæmia.	Puerperal Fever.	Total.	Rate per 1000 living.
						Typhus	Enteric or Typhoid	Other or Doubtful							
Steining R S D	1	..	..	2	..	..	4	..	7	..	2	1	..	17	1.0
Horsham R S D .....	..	..	1	2	8	..	..	1	3	2	..	1	2	22	1.4
Petworth R S D .....	..	..	..	3	..	..	1	..	..	..	..	..	..	4	0.4
Thakeham R S D .....	..	..	2	3	..	..	..	..	1	..	..	..	..	6	0.7
East Preston R S D .....	..	..	5	9	1	..	..	..	1	2	1	..	1	20	2.4
Midhurst R S D .....	..	..	3	4	1	..	6	..	1	1	2	..	1	19	1.3
Westbourne R S D .....	..	..	..	1	..	..	..	..	..	..	2	..	1	4	0.5
Worthing U S D .....	..	..	4	1	..	..	1	..	2	2	..	..	..	10	0.9
Littlehampton U S D .....	..	1	..	..	..	..	..	..	..	..	..	..	..	1	0.2
West Worthing U S D .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	0.0
Total	1	1	15	25	10	..	12	1	17	7	7	2	5	103	1.0
In 1876	3	17	47	14	27	1	11	4	35	1	4	..	5	169	2.0
In 1877	1	5	18	15	12	1	8	3	17	6	3	1	4	94	1.1
In 1878	2	9	6	13	40	2	10	1	43	1	3	2	6	138	1.6
In 1879 .....	..	9	2	22	17	..	9	2	8	4	3	2	1	79	0.9
In 1880 .....	..	23	9	12	55	..	15	1	49	1	3	..	3	171	1.9
Total in the 6 years, 1876-1881	7	64	97	101	161	4	65	12	169	20	23	7	24	754	1.4

Table VII.—Showing the Zymotic Deaths in each month of the year 1881.

	Jan.	Feb.	Mar.	1st Qr.	Apl.	May	June	2nd Qr.	July	Aug.	Sept.	3rd Qr.	Oct.	Nov.	Dec.	4th Qr.	Year
Small-pox.....	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1	1
Measles .....	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	1
Scarlatina	5	2	1	8	2	1	...	3	...	...	...	...	3	1	...	4	15
Diphtheria .....	...	3	2	5	1	7	4	12	2	...	1	3	2	3	...	5	25
Whooping-cough	2	1	3	6	...	...	...	...	...	3	1	4	...	...	...	...	10
Typhus ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Enteric ...	1	...	4	5	1	3	2	6	...	...	...	...	...	1	...	1	12
Other forms	...	...	...	...	...	1	...	1	...	...	...	...	...	...	...	...	1
Diarrhoea .....	...	...	...	...	...	1	...	2	2	6	4	12	...	...	...	...	17
Rheumatic Fever	...	1	1	2	1	1	1	3	...	1	...	1	...	1	...	1	7
Erysipelas	1	1	...	2	1	...	...	1	...	1	...	1	1	2	...	3	7
Pyæmia .....	...	...	...	...	1	...	...	1	...	...	1	2	...	...	...	...	2
Puerperal Fever	...	...	1	1	1	...	1	2	1	...	1	...	...	...	...	...	5
Total	9	8	15	32	10	14	8	32	5	11	8	24	6	9	...	15	103

Table VIII.—Showing the Deaths and Death-rate from all causes and from various causes in each district during the Seven years, 1875-81.

District.	Per 100,000 living at all ages.					
	Mean Annual Number of Deaths, 1875-81.	Mean Annual Death-rate 1875-81.	Mean Annual Zymotic Death-rate 1875-81.	Mean Annual Phthisis Death-rate, 1875-81.	Mean Annual Lung-Disease Death-rate, 1875-81.	Mean Annual Heart-Disease Death-rate, 1875-81.
Steyning R S D	229.7	1480	175	164	221	108
Horsham R S D	214.0	1450	130	160	261	105
Petworth R S D	160.1	1640	113	157	298	135
Thakeham R S D ...	133.4	1601	178	145	288	133
East Preston R S D .	127.5	1654	161	178	205	165
Midhurst R S D.....	211.3	1538	118	161	181	177
Worthing U S D.....	165.8	1695	195	176	205	160
Do. excluding visitors.	150.4	1536	175	149	187	148
Littlehampton U S D	53.2	1443	109	193	198	114
Do. excluding visitors.	51.0	1366	105	165	194	110
West Worthing U S D	4.4	812	52	78	—	104

Table IX.—Showing the Deaths and Death-rate from all causes and from various causes in the Combined District during the Six years, 1876-81.

Year.	Annual Number of Deaths.					Population.	Annual Rate per 100,000 living.				
	All Diseases.	Zymotic Disease.	Phthisis	Lung-Disease.	Heart-Disease.		All Diseases.	Zymotic Disease.	Phthisis	Lung-Disease	Heart-Disease
1876	1351	169	139	176	117	81703	1654	206	170	215	143
1877	1212	94	152	138	111	82610	1467	113	184	167	134
1878	1354	138	151	213	98	83627	1619	165	180	254	117
1879 ..	1292	79	143	216	134	84648	1526	93	168	255	158
1880	1287	171	129	204	89	86244	1492	198	149	236	103
1881	1323	103	117	193	128	94770	1396	108	123	203	135
Total	7819	754	831	1140	677	.....	1525	147	162	221	131

Table X,—Showing the Causes of Death of 1323 persons in the Combined Sanitary District in 1881,

Cause of Death,	Steyning R.S.A.	Horsham R.S.A.	Petworth R.S.A.	Thakeham R.S.A.	East Preston R.S.A.	Midhurst R.S.A.	Westbourne R.S.A.	Worthing U.S.A.	Littlehampton U.S.A.	West Worthing U.S.A.	Total.		Total, both sexes.
											M.	F.	
All causes	197	197	158	114	128	205	91	170	58	5	720	603	1323
Zymotic Diseases	17	22	4	6	20	19	4	10	1	..	54	49	103
Phthisis	14	22	13	17	12	14	7	11	7	..	61	56	117
Disease of the Brain	34	25	24	20	10	34	13	26	14	1	114	87	201
" Organs of Circulation.	17	14	17	9	15	20	11	21	8	1	57	76	133
" Respiratory Organs...	19	30	38	14	15	33	15	23	6	..	114	79	193
" Digestive ..	13	16	9	9	4	10	4	15	2	..	37	45	82
" Urinary ..	3	8	2	3	2	5	2	8	1	..	24	10	34
" Uterine ..	1	..	1	..	..	1	1	3	..	..	..	7	7
Childbirth	1	..	..	1	2	2	..	..	..	..	..	6	6
Infantile Debility and Atrophy.....	11	5	13	6	10	8	7	6	4	..	42	28	70
Premature Birth	10	12	2	1	4	14	..	5	2	1	32	19	51
Old Age	33	17	17	10	22	26	13	18	7	1	94	70	164
Accidents	3	5	3	4	4	2	3	4	..	..	19	9	28
Suicides ..	2	2	3	2	1	1	..	2	2	..	14	1	15
Other causes ...	19	19	12	12	7	16	11	18	4	1	58	61	119

Table XI.—Showing the Accidental Deaths in 1881.

CAUSE OF DEATH.	Steysning R. S. D.		Horsham R. S. D.		Petworth R. S. D.		Thakeham R. S. D.		East Preston R. S. D.		Midhurst R. S. D.		Westbourne R. S. D.		Worthing U. S. D.		Littlehampton U. S. D.		West Worthing U. S. D.		TOTAL.		Total both sexes.	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
By Drowning .....	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
" Suffocation.....	...	...	1	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
" Falls .....	...	...	1	...	1	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
" Burns and Scalds	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...
" Exposure to Cold	...	1	...	...	...	...	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...
" Lightning	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
" Railway .....	...	...	...	1	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
" Other injuries ...	...	1	2	...	...	...	1	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
TOTAL.....	1	2	4	1	2	1	4	...	3	1	2	...	1	2	2	2	...	...	...	...	19	9	28	28
In 1877 ..	9	...	2	1	2	2	2	...	4	1	3	...	...	...	1	...	...	...	...	...	23	4	27	27
In 1878	6	2	2	...	2	1	1	...	2	1	2	2	...	...	...	...	...	...	...	...	18	8	26	26
In 1879	2	1	7	4	6	...	1	2	4	1	1	...	...	...	5	1	...	...	...	...	27	10	37	37
In 1880	5	...	5	1	3	...	4	...	2	1	1	...	...	...	1	...	2	...	...	...	23	2	25	25

Table XII.—Showing the Deaths by Suicide in 1881.

MODE OF DEATH.	Steyning R. s. D.	Horsham R. s. D.	Petworth R. s. D.	Thakeham R. s. D.	East Preston R. s. D.	Midhurst R. s. D.	Westbourne R. s. D.	Worthing u. s. D.	Littlehampton u. s. D.	West Worthing u. s. D.	TOTAL.	Total both sexes.
By Cutting Throat	M .. F ..	M .. F ..	M .. F ..	M .. F ..	M .. F ..	M .. F ..	M .. F ..	M .. F ..	M .. F ..	M .. F ..	M .. F ..	M .. F ..
" Drowning.....	2	1	2	1 .. .. ..	.. .. .. ..	.. .. 1 ..	.. .. .. ..	1 .. .. ..	.. .. .. ..	.. .. .. ..	1	1
" Hanging .....	.. .. .. ..	1	1	1 .. .. ..	.. .. .. ..	.. .. .. ..	.. .. .. ..	.. .. .. ..	1 .... ..	.. .... ..	.. .... ..	.. .... ..
" Shooting .....	.. .. .. ..	.. .. .. ..	.. .. .. ..	.. .. .. ..	.. .. .. ..	.. .. .. ..	.. .. .. ..	.. .. .. ..	1 .. .. ..	.. .. .. ..	1	1
TOTAL	2 ..	2 ..	3 ..	2 ..	1 ..	1 ..	..	2 ..	2 ..	..	14 1	15
In 1875	1 1	3 ..	2 ..	.. ..	3 ..	.. ..	.. ..	1 ..	.. ..	.. ..	9 5	14
In 1876	1 1	.. ..	1 ..	1 ..	1 ..	.. ..	.. ..	1 ..	.. ..	.. ..	5 6	11
In 1877	2 ..	3 ..	1 ..	2 ..	1 ..	1 ..	.. ..	.. ..	.. ..	.. ..	9 5	14
In 1878	1 1	1 ..	1 ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	5 6	11
In 1879	3 1	2 1	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	9 5	14
In 1880	3 ..	.. ..	.. ..	.. ..	.. ..	1 ..	.. ..	2 ..	.. ..	.. ..	6 ..	6